

**Early adolescents' motivation and engagement in  
learning and impact of the school-related conditions in  
low Socio-economic districts in Sri Lanka:  
A mixed methods study**

by  
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## **CERTIFICATION OF THESESES**

I certify that the ideas, experimental work, results, analyses, software, and conclusions reported in this dissertation are entirely my own effort, except where otherwise acknowledged. I also certify that the work is original and has not been previously submitted for any other award, except where otherwise acknowledged.



Signature of Candidate

03.10.2018

Date

## **ABSTRACT**

This study employed an explanatory sequential mixed methods research design to determine levels of motivation and engagement, and the school-related conditions that might influence such levels among Sri Lankan secondary school students. This study surveyed 100 Sinhala-medium and 100 Tamil-medium eighth-grade students (50 students from each gender). The mean age of the students was 12.8 years. Schools were represented by type 2 “government” schools located in the Monaragala and Nuwara Eliya districts in Sri Lanka. Twenty-four low-motivated students (12 from each gender) were selected based on the MQ scores of the MES-JS. Students who attained the lowest MQ scores for booster thoughts and booster behaviours, and highest MQ scores for mufflers and guzzlers were selected for conducting semi-structured interviews. The mean age of interviewed students was 12.9 years. Twelve teachers and 12 principals were also interviewed.

Confirmatory factor analysis was conducted to measure the construct validity of the scale. Since this did not provide a robust solution, exploratory factor analysis was also conducted. Four factors were identified; Failure Avoidance and Anxiety (FAA), Positive Motivation (PM), Uncertain Control (UC), and Positive Engagement (PE). Based on those four factors, parametric tests – *t*-tests, two-way MANOVA, two-way ANOVA, one-way ANOVA –and non-parametric tests – Kruskal-Wallis *H* tests – were employed to analyse quantitative data and thematic analysis was applied to the qualitative data.

The findings of the quantitative phase of the study indicated that early adolescents’ motivation and engagement was not a major problem across the study population but there was a group of students who exhibiting low motivation and engagement. Interviews were conducted with this group. This qualitative phase of the study indicated that the quality of classroom relationships and the curriculum and resources impacted on the least motivated and engaged students’ learning. Especially, negative teacher-student relationships, lack of intrinsic motivation, the influence of peers, harsh punishments, inadequate encouragement, un-engaging teaching, unfriendly teaching-learning environment, inadequate quality learning activities, difficult subject matter, difficult and excessive homework, regular tests, inadequate classroom resources, and inadequate quality teaching-learning resources were revealed as contributing to low motivation and

engagement. Some teachers and principals stated that they had employed: raising parental awareness, providing individual support, and short-term initiatives. It was revealed that, there was a link between the least motivated and engaged early adolescents' learning and the impact of school-related conditions in low socio-economic districts in Sri Lanka, particularly in Tamil-medium schools.

This study proposes a model to increase the motivation and engagement in learning of early adolescents in low socio-economic districts in Sri Lanka through a self-determination theory approach.

## LIST OF PUBLICATIONS

### Journal Articles

Perera, R., & Hathaway, T. (2017). Principals' and teachers' perceptions about the impact of school-related conditions on early adolescents' motivation and engagement in learning and their motivating practices (in low socio-economic districts in Sri Lanka). *International Journal of Social Sciences*, 3(1), 288–306. doi:10.20319/pijss.2017.31.288306 (see Appendix A)

Perera, R. (2018). Early adolescents' motivation and engagement in learning in low socio-economic districts in Sri Lanka (Based on Kruskal-Wallis *H* test results). *International Journal of Innovative Research and Knowledge*, 3(6), 270–78. Retrieved from www.ijirk.com (see Appendix B)

### Conference Presentations

Perera, R., & Hathaway, T. (2016, November). *Early adolescents' perceptions of school conditions impacting motivation and engagement in learning in low socio-economic districts in Sri Lanka*. Paper presented at the International Conference on Education and Psychology, Kyoto, Japan. (see Appendix C)

Perera, R. (2018, August). *Early adolescents' motivation and engagement in learning in low socio-economic districts in Sri Lanka (Based on two-way MANOVA and one-way ANOVA results)*. Paper presented at the International Conference on Psychology, Language, and Teaching, Sydney, Australia. This paper won the excellent paper award (see Appendix D)

Perera, R. (2018, October). *Early adolescents' motivation and engagement in learning in low socio-economic districts in Sri Lanka (Based on t-tests results)*. Paper to be presented at the International Conference on School Psychology and Educational Psychology, Sydney, Australia. (see Appendix E)

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## LIST OF ABBREVIATIONS AND ACRONYMS

ANOVA	Analysis of Variance
CFA	Confirmatory factor analysis
CFI	Comparative Fit Index
Cronbach's $\alpha$	Cronbach's Alpha
EFA	Exploratory Factor Analysis
ESL	English as second language
EST	Ecological Systems Theory
FA	Factor Analysis
FAA	Failure Avoidance and Anxiety
GCE - A/L	General Certificate in Education-Advanced Level
IPS	Institute of Policy Studies of Sri Lanka
KMO	Kaiser-Meyer-Olkin
MANOVA	Multivariate analysis of variance
MDT	Motive Disposition theory
MES	Motivation and Engagement Scale
MES-HS	Motivation and Engagement Scale-High School
MES-JS	Motivation and Engagement Scale-Junior School
MQ	Motivation Quotient
MQ scores	Motivation Quotient scores
NE	Negative Engagement
NM	Negative Motivation
P	Principal
PCA	Principal Component Analysis
PE	Positive Engagement
PM	Positive Motivation
RMSEA	Root Mean Square Error of Approximation
RQ	Research questions
S	Student
SDT	Self-determination theory
SES	Socio-economic status
SRMR	Standardised Root Mean Square Residual
T	Teacher
TASS	Teacher Autonomy Support Scale
TLI	Tucker-Lewis Index
TRAPD	translation, review, adjudication, pre-testing, and documentation
UC	Uncertain Control

## GLOSSARY OF TERMS

All of the following terms are related to the MES-JS (Martin, 2014).

**Anxiety** - Feeling nervous and worrying (Martin, 2014a).

**Boosters** - Self-belief, learning focus, valuing of school, persistence, planning, and study management (Martin, 2014a, p. 38).

**Disengagement** - Students are disengaged or at risk of disengagement when they lose interest or feel like giving up in particular school subjects or school generally (Martin, 2014a, p. 40).

**Early adolescents**- Early adolescence can be described as a stage of life, typically taking place in the ages of 10 and 15 years (Urdu & Klein, 1998). Therefore, early adolescents are students in this age range.

**Engagement**- Students' excellence of involvement, investment, dedication and recognition with school and school-related tasks to improve their achievement

**Failure avoidance** - Students have a failure avoidance focus when the main reason they do their schoolwork is to avoid doing it poorly or to avoid being seen to do it poorly (Martin, 2014a, p. 39).

**Guzzlers** - Self-sabotage and disengagement (Martin, 2014a)

**Junior secondary students** - Students who learn in grades 6–9 in the age range of 10–13 years. In this study, the terms early adolescents, junior secondary students and students are interchangeable.

**Learning focus** - Is being focused on learning, solving problems, and developing skills (Martin, 2014a, p. 39).

**Low participation**- Students low participation in education can be described as low achievement levels, high absenteeism and early dropouts.

***Low socio-economic districts***- Districts which are below the standard level of key socio-economic indicators.

***Motivation Scores*** - Each student's answers to the four items on each motivation area are then combined and converted to a raw score out of 100(Martin, 2014a, p. 5).

***Motivation*** - Motivation is a set of viewpoints that force and continue behaviour and is a significant forerunner to learning and achievement in school (Wentzel, Wigfield, & Miele, 2009; Wigfield, Eccles, Schiefele, Roeser, & Davis-Kean, 2006).

***Motivational Strategies*** - Strategies taken by the schools (both teachers and principals) to increase students' motivation and engagement in learning, particularly teaching practices.

***Mufflers*** - Anxiety, failure avoidance and uncertain control (Martin, 2014a, p. 39).

***Normative MQ scores*** - The raw scores on the MES-JS (Martin, 2014a) can also be converted to 'normative' scores referred to as MQ (Motivation Quotient) scores. MQs have a mean of 100 and a standard deviation of 15 (as in an IQ score).

***Persistence*** - How students keep trying to work out an answer or to understand a problem even when that problem is difficult or is challenging (Martin, 2014a, p. 39).

***Planning*** - How much students plan their school work, assignments, and study, and how much they keep track of their progress as they are doing them (Martin, 2014a, p. 39).

***School-related conditions*** - Fundamentals or situations that have an important impact on student learning in schools and classrooms. (It should be noted that since students are also an element of schools and classrooms, in this study, the students' lack of intrinsic motivation theme was considered as a school-related condition.)

***Self-belief*** - Students' belief and confidence in their ability to understand or to do well in their school work, to meet the challenges they face, and to perform to the best of their ability (Martin, 2014a, p. 38).

***Self-sabotage*** - Students self-sabotage when they do things that reduce their chances of success at school (Martin, 2014a, p. 40).

***Sinhala/Sinhala-medium schools*** - Schools which provide the teaching and learning process in Sinhala-medium (Sinhala is the language of the Sinhalese people). These two terms are interchangeable.

***Tamil/Tamil-medium schools*** - Schools which provide the teaching and learning process in Tamil medium (Tamil is the language of the Tamil people). These two terms are interchangeable.

***Task management*** - The way students use their homework time, organise their homework timetable, and choose and arrange where they do their schoolwork and homework (Martin, 2014a, p. 39).

***The Motivation and Engagement Scale-High School (MES-HS)*** - An instrument that measures junior school students' (12–19 years) motivation and engagement (Martin, 2014)

***The Motivation and Engagement Scale-Junior School (MES-JS)*** - An instrument that measures junior school students' (9–13 years) motivation and engagement (Martin, 2014)

***Uncertain control*** - Students are uncertain in control when they are unsure about how to do well or how to avoid doing poorly (Martin, 2014a, p.4 0).

***Valuing*** - How much students believe what they learn at school is useful, important, and relevant to them or to the world in general (Martin, 2014a, p. 38).

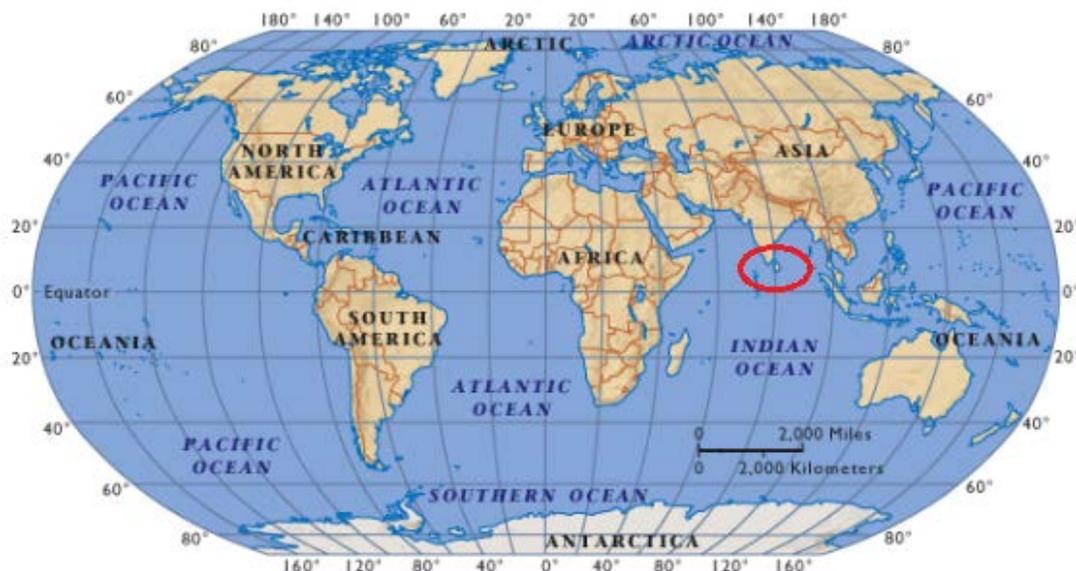
# CHAPTER 1: INTRODUCTION

## 1.1 Introduction

The research was planned to examine early adolescents' motivation and engagement in learning, the school-related conditions that impact them, and motivational strategies taken by schools in low socio-economic districts in Sri Lanka. This chapter provides an overview of the study and presents a discussion of the context of inquiry, research rationale, background to the study, research questions, significance of the research, definitions of terms and overview of the thesis contents.

## 1.2 Country context

Sri Lanka is a relatively small teardrop-shape island located in the Asian region to the south of India. It measures 433 km from north to south and 226 km from west to east, with a total area of 65,610 sq. km. It has a moderate tropical climate (see Figures 1.1 and 1.2).



**Figure 1.1: Sri Lanka's position on the world map**  
Retrieved from [http://go.hrw.com/atlas/norm\\_html/world.htm](http://go.hrw.com/atlas/norm_html/world.htm)



**Figure 1.2: Sri Lanka's position in south Asia**

Retrieved from [http://www.nature.com/nrneurol/journal/v10/n3/fig\\_tab/nrneurol.2014.13\\_F1.htm](http://www.nature.com/nrneurol/journal/v10/n3/fig_tab/nrneurol.2014.13_F1.htm).

According to the 13<sup>th</sup> amendment to its constitution, Sri Lanka was separated into nine provinces in the 19<sup>th</sup> Century. Every province consists of two or three districts, and there are 25 districts in total (see Figures F.1 and F.2 in Appendix F).

Sri Lanka is a republic with an Executive President, a Prime Minister and a Cabinet of Ministers. It has a parliament elected by universal franchise with a voting age of 18 years and a constitution that ensures basic human rights. Since 1987, some powers have been devolved to the Provincial Councils. Each Provincial Council includes a number of *Pradeshiya Sabhas* (divisional assemblies). The urban sector has municipalities in large towns and urban councils in small towns. The estate sector consists of tea and rubber plantations which was initiated in the time of British colonial administration. The administrative structure has several levels: from the central line ministries in the different sectors to provinces, districts, and zones in the education sector.

The annual report of the Central Bank of Sri Lanka (2016) stated that Sri Lanka is a lower middle-income country which has a total population of 21.2 million people with a gender distribution of 49.3% male and 50.7% female. At that time, the Sri Lankan annual population growth rate was 1.1%, and the population density 338 per sq. km. Of the total

population, 25.22% are children<sup>1</sup> aged less than 18 years. In 2015, Sri Lanka's per capita income was USD 3,912 and its Human Development Index was 0.766. The Sri Lankan population is unevenly distributed, with only 18.3% residing in urban areas, 77.3% residing in rural areas and 4.4% in the estate sector. The average literacy rate is 93.2% and expectation of life at birth is 75 years.

The annual report of the Central Bank of Sri Lanka (2016) also states that the economy grew by 4.4% in 2016. The ethnic composition of the country is Sinhalese 74.9%, Sri Lankan Tamil 11.2%, Indian Tamil 4.2%, Sri Lankan Moors 9.2%, and others 0.5%. Of the labour force, 27.1% are employed in the agricultural sector, 26.4% in industry, and 46.5% in the services sector. The Sri Lankan student-teacher ratio in government schools is 1:18.

### **1.3 The Sri Lankan education system**

According to Athurupane (2009), the modern system of education in Sri Lanka was created by the British colonial administration in the 19<sup>th</sup> Century. During the transitional years from the 1930s to political independence in 1948, local policy makers sought to eliminate the socio-economic and linguistic inequalities in-built in the colonial education policy. In the 1940s these initiatives included free-of-charge state primary, secondary and tertiary education; providing inducements, such as scholarships for secondary and higher education; the organisation of central schools in the rural sector which had been excluded in the development of modern secondary education; and taking initial steps to use the two national languages as the medium of instruction. Further, these policies were pursued through the decades with commitment resulting in relatively high participation rates in education.

Four levels exist in education in Sri Lanka, as shown in Table 1.1.

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<sup>1</sup> The United Nations International Children's Emergency Fund (UNICEF, 2006) defines a child as "a human being below the age of 18 years unless under the law applicable to the child, majority is attained earlier".

**Table 1.1: Levels of education in Sri Lanka**

Level	Age group	Grades
Primary	5-10 years old	1-5
Junior (lower) secondary	11-14years old	6-9
Senior (upper) secondary	15-16 years old	10-11
Collegiate	17-18 years old	12-13

In 2014, there were 10,123 government schools, categorised by the Ministry of Education into four types (see Table 1.2) (Ministry of Education, 2014).

**Table 1.2: Types of schools in Sri Lanka**

Type	Description of schools
1A & B	Schools having GCE (A/L) with all the subject streams (Grade 1–13)
1C	Schools having GCE (A/L) Arts/Commerce streams only /No Science stream (Grade 1–13)
Type 2	Schools having classes Grade1–11
Type 3	Schools having classes only up to Grade 1–5/1–8

This study focuses on schools located in the low socio-economic districts of Sri Lanka, with one of the districts (Nuwara Eliya) selected located within the estate sector, which encompasses the tea and rubber plantations initiated by the British colonial administration. The estate sector community comprises the descendants of South Indian Tamil immigrants taken by the colonial administration as estate labourers from South India. This cultural group has been a marginalised society from the 19<sup>th</sup> Century. The Country Programming Document for Sri Lanka, 2013–2017 identified the children of this cultural group as being deprived educationally (UNICEF, 2013). Aheeyar (2006) found that, in contrast to other sectors within the country, the Sri Lankan estate sector shows poor educational achievements, particularly among girls.

## 1.4 The research problem

Even though the Sri Lankan Government provides support for students at all levels of the school system, for example, free education, textbooks, school uniforms, subsidised public

transportation and school meals, low participation in learning among secondary students is an issue warranting investigation, particularly in low socio-economic areas. Recent reports from the Central Bank of Sri Lanka (2015, 2016), Ministry of Education (2011, 2014) and Ministry of Education, UNICEF, and MG Consultants (2009) suggest that this trend will continue unless schools radically shift their educational approaches and support for junior secondary students. One of the central factors contributing to this situation may be the school-related conditions. This study investigated the levels of motivation and engagement amongst students in a number of schools in two low socio-economic districts of Sri Lanka. It also investigated whether school-related conditions impact early adolescents' motivation and engagement in learning in low socio-economic districts in Sri Lanka, and, if so, what changes might be undertaken to remedy this situation.

According to Liyanage (2013), even though Sri Lanka is considered a South Asian country with a high literacy rate, the situation hides many serious weaknesses in its education system. There have been a number of issues related to the Sri Lankan education system, for example, low participation and low attendance; low achievement in mathematics and science; imbalanced allocation of resources among schools, particularly between urban and rural schools; and an excessively large curriculum. Raju (2016) notes that evidence from standardised tests of Sri Lankan students suggests shortfalls. Little, Indika, and Rolleston (2011) argue the major challenge facing Sri Lanka at present is to improve standards for all students. They identify a number of inequalities regarding secondary education enrolment that need to be addressed to achieve this, including disparities between male and female students, urban and rural schools, and among school types and income groups.

The *Treasures of the Education System in Sri Lanka* report (World Bank, 2005) indicated that while Sri Lanka has universal compulsory education for all children between five and 14, in practice not all students attend school. The report stated that about 18% of students are unable to complete grade 9. Many of these children come from deprived homes, economically deprived geographical areas, including the estate sector, and areas that are remote and war affected. The World Bank report proposes that to achieve universal compulsory education targets, strong policy actions should be implemented for those

groups. More recently, the *Millennium Development Goals Country Report* (United Nations, 2014) affirmed that the percentage of children attending school after age 14 is lower for males than females; this is mainly the case in the rural and estate sectors. For example, 68.6% of boys aged 15 to 16 attend school in the estate sector compared to 77.5% of girls.

Athurupane (2009) argued that the quality of basic and secondary education needs to be improved, particularly in disadvantaged areas. However, time is required to implement the reforms in schools and reinforce teaching-learning processes, particularly in rural and plantation regions. Perera (2011) postulates that poor teacher-student relationships and lack of teachers' attention have been factors for poor retention in school. She has identified that negative teacher-student relationships, negative peer groups, and an unfriendly classroom and school environment as factors which reduce the desire of students to attend school (Perera, 2006).

Jayaweera and Gunawardena (2013) conducted a study on children who are not attending school, when they should be. They employed a sample of 1,014 children and 944 parents/caregivers in 22 districts in Sri Lanka and six community types. Sixty percent of the out-of-school group consisted of children who had never been to school (15.7%) or who had left early (44.3%). More males (46.3%) than females (42.3%) were in the early drop-out group. The majority of out-of-school students were in the 10 to 14 age group (61.7%). The out-of-school children percentage was comparatively higher in the Sri Lankan Tamil population. In the out-of-school group, 53% of the children were village based. Most of the children (96.4%) had left before completing junior secondary education and 35.7% had left before completing primary education. The percentages varied from 50% in low income urban communities to 40.3% in estates, 38.3% in villages, and 36.8% in the fishing population.

The above data and information shows that student participation in junior secondary school in Sri Lanka, particularly in low socio-economic districts, is not meeting the desired goals. The reasons for these are varied, but a number of factors have been identified as possibly contributing to low participation, including school transitions (e.g. Symonds & Hargreaves, 2016); student-teacher relatedness (e.g. Schmakel, 2008); peer

relationships (e.g. Wang & Eccles, 2013); academic achievement (e.g. Salinas-Jimenez, Artes, & Salinas-Jimenez, 2010); and the curriculum (Eccles & Wigfield, 2002).

Even though school attendance has been mandated for a number of years for all children between six and 14 in Sri Lanka, it is evident that this has not been achieved. While the existence of the problem has been identified, limited literature exists that has attempted to describe why the problem exists, nor what strategies might be available to the education authorities in Sri Lanka to achieve full student attendance. This study examined student attendance in schools from low socio-economic districts in Sri Lanka and developed a theory based on student motivation and engagement to explain the attendance/non-attendance phenomenon. It also reports on potential strategies that might be available to schools to address the issue.

### **Research objectives**

The specific objectives of the research were to:

1. Develop validated scales that would allow the measurement of student engagement and motivation in a Sri Lankan school context.
2. Examine whether motivation and engagement in learning are related to different variables associated with student characteristics and demographics.
3. Explore students', teachers' and principals' experiences of teaching and learning to understand how these influence students' motivation and engagement in learning.
4. Develop potential strategies that positively address issues of low motivation and lack of engagement in learning in Sri Lankan junior secondary schools.

### **Research questions**

1. How can student engagement and motivation be measured for junior secondary students in low socio-economic schools in Sri Lanka?
2. What are the levels of motivation and engagement in learning amongst junior secondary students in low socio-economic districts in Sri Lanka?
3. Do levels of motivation and engagement in learning vary with gender for junior secondary students in low socio-economic schools in Sri Lanka?

4. Do levels of motivation and engagement in learning vary with ethnicity for junior secondary students in low socio-economic schools in Sri Lanka?
5. What differences exist between schools in the levels of motivation and engagement in learning for junior secondary students in low socio-economic schools in Sri Lanka?
6. What school-related conditions impact upon junior secondary students' motivation and engagement in learning in low socio-economic schools in Sri Lanka?
7. What motivational strategies have been taken by the schools to increase students' motivation and engagement in learning in low socio-economic schools in Sri Lanka?

## **1.5 Significance of the research**

Martin and Tracey (2006) theorise that individuals who have energy and passion to learn, work successfully and attain at school are motivated students. Motivation plays a major role in a student's interest, engagement and satisfaction in school and related activities, for example, homework. Student's achievement is also reinforced by motivation, and achievement requires passion and dedication.

It has been argued that students who are motivated and engaged in learning achieve better academic outcomes in a number of areas (Caraway, Tucker, Reinke, & Hall, 2003; Wang & Holcombe, 2010). Further, Wang and Holcombe (2010) reported that motivated students typically earn better grades and are more proficient on standardised tests when they attend school more frequently, focus on learning, abide by school rules and avoid disruptive behaviours.

Scheel, Madabhushi, and Backhaus (2009) propose that low academic motivation is a predictor of low achievement, and lower achievement is a powerful predictor of school dropout. Thus, it is crucial to discover a way to motivate students who are disengaged in learning. Based on the findings of this study, school leaders may be able to form more effective and evidence-based learning environments that will promote increased student attendance and outcomes. The research literature is extensive in relation to junior secondary school students' motivation and engagement in learning in Western countries, including the USA and Canada (Balfanz, Herzog, & MacIver, 2007; Byrnes & Ruby, 2007; Davis, 2003; Dweck, 2006; Jensen, 2001; Weiss & Kipnes, 2006) and Australia

(Campbell et al., 2009; Martin, 2003; Saeed & Zyngier, 2012). There is limited literature relating to these constructs for students in Asian nations (Hardre et al., 2006; Stroud, 2013), such as Sri Lanka. In particular, no academic literature has been identified that examines junior secondary students' motivation and engagement in Sri Lanka.

This study will be significant because it will add to the literature that theorises the association between engagement and motivation and school attendance for students from low socio-economic schools in Sri Lanka. It will also provide a starting point for school leaders in Sri Lanka to initiate strategies that will enhance the outcomes of students in their schools.

## **1.6 Chapter organisation**

This thesis is organised into six chapters. The first chapter (Introduction) introduces the country context, the Sri Lankan education system, a description of the research problem and the significance of the research. The second chapter (Literature review) reviews the literature relevant to students' motivation and engagement in learning in different aspects: concepts of motivation and engagement; different models of motivation and engagement; link between motivation and engagement; self-determination theory, its alternatives and limitations; Motivation and Engagement Scale-Junior School and studies conducted employing that scale; studies on low socio-economic status students' disengagement in learning; school-related conditions impacting students motivation and engagement in learning; studies using self-determination theory to promote students motivation and engagement in learning; and how to increase motivation and engagement of students using self-determination theory. And, finally, Chapter 2 presents the conceptual framework.

The third chapter (Research Methodology) begins with the research questions and a discussion of the major research paradigms, and the research paradigm adopted in the current study: pragmatism. The methodology chosen for the research, the research design including methods and stages of data collection, data preparation, data analysis, and validity and reliability procedures are also discussed, followed by the ethical considerations.

The fourth chapter (Quantitative Data Analysis, Findings, and Discussion) consists of two sections. In the first section, psychometric properties, including the factor analysis procedures used, and descriptive statistics are discussed. Scales for use in the study are validated. The second section presents an inferential statistical analysis of study data.

The fifth chapter (Qualitative Data Findings and Discussion) discusses the findings of the qualitative data analysis based on thematic analysis. The sixth and final chapter (Conclusions, Implications, and Recommendations) presents the conclusions, implications, and limitations of this study. It closes with recommendations based on the findings of this study presented for different counterparts (teachers, principals, and educational authorities/the 'government') and recommendations for future research.

## **CHAPTER 2: LITERATURE REVIEW**

### **2.1 Introduction**

The previous chapter provided the context of the current study. It was identified that Sri Lankan low socio-economic students in lower secondary school have low participation in education (e.g. Athurupane, 2009; Jayaweera & Gunawardena, 2013; Little et al., 2011; Liyanage, 2013; Perera, 2006; Perera, 2011; Raju, 2016). One possible reason for this situation is that these students lack the necessary motivation and engagement in learning to support their attendance. This chapter develops the conceptual framework that was used in this study.

Thus, this chapter reviews the two main concepts used in the current study, motivation and engagement. The discussion of motivation will include reference to intrinsic motivation, extrinsic motivation, and amotivation. The discussion of engagement will include an examination of the North American model of engagement and contrast this with the European Approach to engagement. Next, the link between motivation and engagement will be briefly examined. Self-Determination Theory (SDT) (Deci & Ryan, 1985) is used in this study to provide a theoretical lens to interpret and analyse the data. Therefore, the main principles of SDT, SDT alternatives and limitations will be discussed, followed by a description of the Motivation and Engagement Scale (Martin, 2014).

Because the study was conducted using the Motivation and Engagement Scale – Junior School (MES-JS) (Martin, 2014), its application in different contexts will also be briefly discussed. An examination of studies with a focus on low socio-economic status, studies conducted based on students' motivation and engagement in learning in low socio-economic status (SES) will be reviewed next.

Finally, the most common school-related conditions impacting students' motivation and engagement in learning will be discussed, including school transitions, student-teacher relatedness, peer relationships, academic achievement, curriculum and psychological stressors. Studies undertaken in relation to SDT to promote student motivation and engagement in learning with a special focus on Asian countries will be discussed as well.

The chapter will close with an examination of possible ways for increasing students' motivation and engagement in learning through SDT and with a presentation of the conceptual framework of the study.

## **2.2 Motivation**

Many researchers (e.g., Wentzel, Wigfield, & Miele, 2009; Wigfield, Eccles, Schiefele, Roeser, & Davis-Kean, 2006) consider motivation as a set of beliefs that force and maintain behaviour. Researchers also argue that motivation is one of the essentials for learning and achievement (Murphy & Alexander, 2000; Pintrich, 2003; Schunk, 2000). Lai (2011) emphasised that motivation is related to a number of other important educational outcomes, including critical thinking and meta-cognition. According to Martin (2014), motivation can be defined as a student's energy and force to learn, work successfully, and attain his or her potential. Further Martin (2007, 2009, & 2010) explained that motivation and engagement play a large part in students' interest in and satisfaction with study.

Sternberg (2005) stated that motivation is very important for school achievement and, if deficient, students may never make an attempt to learn. As explained by Ryan and Deci (2000) and Schlechty (2001), students' motivation can vary from time to time depending on the learning and teaching context. Similarly, Marsh (2000) emphasised that if teachers have a good understanding of the different types of student motivation, they are in a good position to offer a more favourable learning atmosphere for students that better supports their learning.

According to Vallerand et al. (1992), academic motivation refers to the question "Why go to school?" Thus, academic motivation can be understood as the motivation to choose to study and to continue to study. Wilkesmann, Fischer, and Virgillito (2012) emphasised that learning and achieving do play a crucial role in students' motivation to learn. Also learning processes are an element of academic motivation. Many researchers (e.g., Bures, Abrami, & Amundsen, 2000; Paulsen & Feldman, 2005; Salili, Chi-yue, & Ying-yi Hong, 2001; Valle et al., 2003) emphasise students' motivation in relation to their learning desires and their psychological processes of learning. Motivation may be categorised as

either intrinsic, extrinsic or amotivation (Perlman, 2010). These three types of motivation will be discussed in the next sections. Of the three types of motivation, the present study adopted to study intrinsic motivation.

Intrinsic motivation may be described as “the inherent tendency to seek out novelty and challenges, to extend and exercise one’s capacities, to explore, and to learn” (Ryan & Deci, 2000, p. 7) and “refers to doing something because it is inherently interesting or enjoyable” (Ryan & Deci, 2000a, p. 54). When intrinsically motivated, a person tends to act without any external pressures or rewards. Rather, they are motivated by the pleasure or challenge that arises from within themselves. Moreover, every person is not motivated intrinsically for the same task; some people are intrinsically motivated for some specific tasks and no other tasks.

Many research studies identify a positive association between the level of a student’s intrinsic motivation and academic achievement (e.g. Law, Elliot, & Murayama, 2012; Lee, McInerney, Liem, & Ortiga, 2010; Lepper, Corpus, & Iyenger, 2005)

Ryan and Deci (2000) argued that concrete rewards and also threats, deadlines, commands, pressured evaluations, and compulsory goals decrease intrinsic motivation. Niemiec and Ryan (2009) proposed that students who are given the opportunity to work in an autonomous learning environment demonstrate enhanced levels of intrinsic motivation.

In the extrinsic motivational viewpoint, behaviour is determined by its perceived resulting values and benefits (Lee, Cheung, & Chen, 2005). Ryan and Deci (2000) noted that, in schools, it appears that intrinsic motivation becomes weaker with each advancing grade. Apparently, they argued, most schools employ extrinsic motivational strategies rather than intrinsic motivational strategies in later grades. Ryan and Deci (2002) list a range of extrinsic motivational strategies: external regulation, introjected regulation, identified regulation, and integrated regulation. External regulation is the least autonomous in that, the person acts to avoid punishment or to obtain rewards. Moreover, Ryan and Deci (2000) argued that these different motivations reflect differing levels to which the value and regulation of the requested behaviour has been internalised and integrated.

An amotivated person's behaviour has a lack of intentionality and a sense of individual causality (Ryan & Deci, 2000a). Ryan (1995) argued that if a person does not value an activity, the result is amotivation. When people do not recognise possibilities between results and their own actions, they are amotivated. Amotivated people are not motivated either intrinsically or extrinsically. As emphasised by Vallerand et al. (1992), people feel a lack of competence and anticipation of uncontrollability when they are amotivated. They then recognise their behaviours as a result of forces outside their management. In such situations, students feel deceived and question why they go to school. Eventually, they may discontinue their engagement in learning activities. Similarly, according to Ryan and Deci (2004), amotivation indicates a deficiency in motivation. This happens when people do not comprehend the connection between their action and the result of this action. Amotivation is the most affecting form of motivation, since it consists of a variety of negative mental, physical and emotional results (Perlman, 2010).

All three types of motivation have a potential impact on students' engagement in learning. The current research literature appears to indicate that Sri Lankan low socio-economic early adolescents' motivation for learning is low. The assumption is that their intrinsic motivation is low. The belief is that by increasing their sense of self-determination, their level of motivation could be increased. Therefore, this study will focus on the concept of intrinsic motivation.

## **2.3 Engagement**

According to Schlechty (2001) and Woolfolk and Margetts (2007), together with motivation, engagement is significant for improving the learning outcomes of all students. They consider motivation as a pre-requirement of and an essential aspect for student engagement in learning. Scholars (e.g., Appleton, Christenson, & Furlong, 2008; Baron & Corbin, 2012; Fredricks, Blumenfeld, & Paris, 2004; Phan & Ngu, 2014a) believe that engagement stresses students' different patterns of motivation, cognition and behaviour. Various forms of engagement have been described in the academic literature, including school engagement (Fredricks et al., 2004), study engagement (Schaufeli, Salanova,

Gonzalez-Rom, & Bakker, 2002) and student engagement (Kuh, 2003). This study focuses on the students' engagement with their school and study.

Many arguments exist in the research literature with regard to the number of dimensions of student engagement. Finn (1989) and Willms (2003) describe engagement as comprising two dimensions: behavioural and psychological. Two different three dimensional models have been proposed. Fredricks et al. (2004) and Jimerson, Campos, and Greif (2003) propose the dimensions as being cognitive, psychological and behavioural, while Schaufeli et al. (2002) propose vigour, dedication and absorption. Appleton, Christenson, Kim, and Reschly (2006) describe a four-dimensional model, comprising the academic, behavioural, psychological and cognitive dimensions.

The literature examined for this study exposed two key approaches to engagement: the North American model, primarily associated with Fredricks et al. (2004) and comprising the cognitive, behavioural and emotional dimensions, and the European model, primarily associated with Schaufeli et al. (2002), comprising vigour, dedication and absorption dimensions. These two models have been used in numerous research studies (e.g., Bresó, Schaufeli, & Salanova, 2011; Mo & Singh, 2008; Phan, 2014a; Salmela-Aro, Tolvanen, & Nurmi, 2009; Wang, Willett, & Eccles, 2011).

Numerous research studies have been conducted employing both conceptualisations of the views of engagement, particularly with a focus on students' achievement (e.g., Appleton et al., 2008). There is also extensive research identifying a number of motivational and social precursors able to promote and develop students' engagement. Motivational precursors consist of self-efficacy (e.g., Phan, 2014b; Phan & Ngu, 2014a; Reeve & Lee, 2014), task value (Fan, 2011; Phan & Ngu, 2014b; Wang & Eccles, 2013), and mastery goal orientation (e.g., Phan, 2014a, Wang & Holcombe, 2010). Social precursors of engagement include parents' and teachers' support (Wang & Eccles, 2012b; Wang & Holcombe, 2010).

### **2.3.1 The North American model of engagement**

Cooper (2014), Fredricks et al. (2004), and Yazzie-Mintz and McCormick (2012) theorise that behavioural engagement consists of three components: how students conduct themselves in classes (positive conduct), their participation in school-related activities, and their involvement in academic activities. Positive conduct includes following the class rules, staying within classroom norms, and avoiding troublesome behaviours (Finn, 1993; Finn, Pannoza, & Voelkl, 1995; Finn & Rock, 1997; Fredricks et al., 2004). Participation in school-related or extracurricular activities may comprise different school clubs, sports, or school governance. Students' involvement in their academic tasks consists of behavioural actions shown by the students to demonstrate their interest in engaging in classroom activities and overcoming challenging tasks. Those actions consist of making attempts at school work, determination, attention, class participation, raising questions, and discussion with the teacher and other students (Frydenberg, Ainley, & Russell 2005; Finn, 1993; Fredricks et al., 2004; Skinner & Belmont, 1993).

Cognitive engagement is linked with students' internal psychological qualities or their hidden characteristics which encourage attempts in learning, understanding and acquiring the knowledge (Cooper, 2014; Fredricks et al., 2004; Shernoff, 2013). Cognitive engagement can be considered as a psychological investment of students' learning (Fredricks & McColskey, 2012; Willms, 2003). Fernandez-Zabala, Goni, Camino, and Zulaika (2016) emphasised that cognitive engagement consists of students' understandings and their beliefs about themselves, school, teachers, and peers. Further cognitive engagement involves readiness to make the attempts to understand complex ideas and gain difficult skills (Fredricks et al., 2004).

As emphasised by many researchers (e.g., Fredricks et al., 2014; Renninger & Bacharach, 2015; Stipek, 2002), students' feelings of relatedness to and/or value of their teacher, classroom, or school are linked to their emotional engagement. There are three dimensions of emotional engagement: affective reactions (Connell & Wellborn, 1991; Skinner & Belmont, 1993), emotional reactions (Lee & Smith, 1995; Stipek, 2002), and school identification (Finn, 1989; Voelkl, 1996). Students' interest, boredom, anxiety, sadness and happiness are affective reactions (Fredricks et al., 2004). Emotional reactions include

students' positive or negative feelings about the school, teachers and learning activities (Skinner & Belmont, 1993). School identification is related to students' identification with a place or activity that may represent certain expectations, values, beliefs and practices (Finn, 1989; Voelkl, 1996).

### **2.3.2 The European approach of engagement**

Schaufeli et al. (2002) identify three dimensions in the European approach to engagement: vigour, dedication and absorption. Scholars (e.g., Ouweneel, Schaufeli, & Le Blanc, 2013; Salmela-Aro & Upadyaya, 2014; Upadyaya & Salmela-Aro, 2013) conceptualise vigour as relating to students' level of mental flexibility and force while learning, as well as their expectations to apply and put in effort into their learning activities and their determination to face difficulties in a constructive way of learning.

Ouweneel et al. (2013), Salmela-Aro and Upadyaya (2014), Upadyaya and Salmela-Aro (2013) conceptualise dedication as students' feelings of interest, encouragement, importance and challenge in doing their tasks. Dedication also refers to students' beliefs that school-related activities are important. According to those scholars, absorption refers to students' feeling of being deeply engaged and totally focussed on their learning.

### **2.3.3 Engagement model preferred in current study**

For this research, the North American model was preferred for several reasons. Though, Schaufeli et al. (2002) mostly explained students' psychological engagement rather than their behavioural engagement, Fredricks et al. (2004) emphasised both types of engagement. This study investigated the impact of school-related conditions on early adolescents' motivation and engagement in learning. Therefore, all factors of students' engagement are considered in this study, including behavioural engagement. Schaufeli et al. (2002) only considered students' feelings about their learning and did not consider their thoughts about peers, teachers and the school. However, Fredricks et al. (2004), in their model, considered all aspects of emotional engagement. In the current study, the impact of school-related conditions on students' motivation and engagement in learning were examined, including their learning and their relationships to peers, teachers and the school

environment. Therefore, that model was considered more appropriate for use in this study, and studies conducted using that model are briefly discussed next.

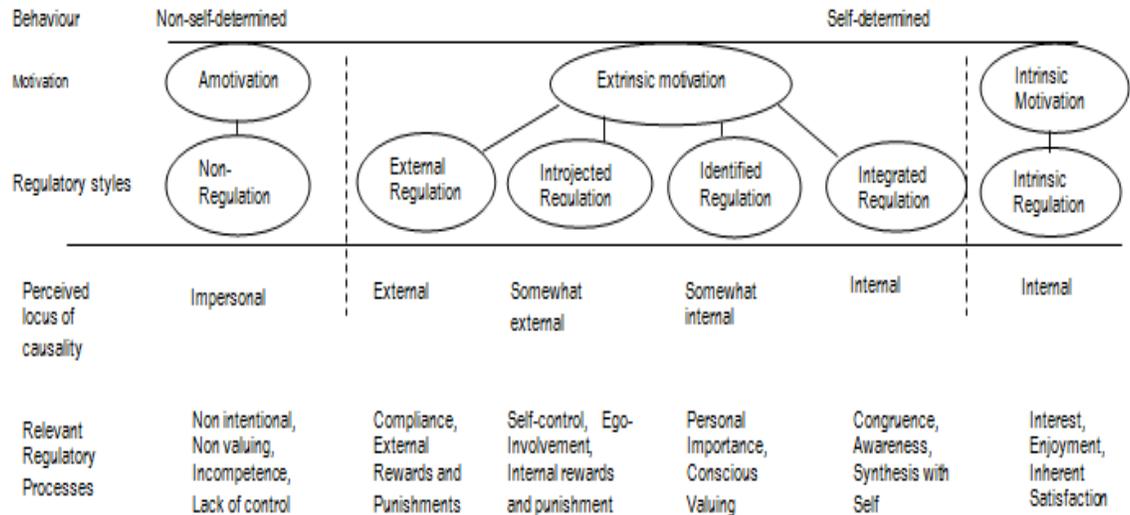
Wang and Eccles (2012a) conducted a study employing 1,148 students from grades 7, 9 and 11, and found that students' engagement declined across those three grades. Further Dotterer and Lowe (2011) studied students' engagement using 1,014 grade 5 students and found that cognitive, emotional and behavioural engagement predicted students' achievement accurately. Mo and Singh (2008) explained the positive impact of those three engagement dimensions for 1,971 intermediate school students. In a longitudinal study with 710 secondary students Chase, Hilliard, Geldhof, Warren, and Lerner (2014) found that there was a positive relationship between those three types of engagement and academic achievement over three years. As emphasised by Perry, Liu and Pabian (2010), students' emotional and behavioural engagement was associated with students' grades. They conducted this study employing 285 intermediate and high school students. In sum, a considerable amount of research has been conducted to examine secondary students' engagement in learning using this model.

When considering all the research discussed in this section, it is evident that there is a positive link between the three types of engagement and students' achievement. In the current study, student performance is not directly considered, with the focus on the impact of school-related conditions on early adolescents' engagement in learning. However ultimately, findings of this study might be indirectly linked to students' performance in learning because the rationale for conducting this study is to explore and find solutions to the low participation rate of a considerable number of early adolescents which leads to lower learning and performance levels.

On the whole, as discussed above with an understanding of the Sri Lankan educational context, it seems that the North American model of engagement is more appropriate than the European model of engagement because of its wide coverage of engagement. Therefore, the engagement framework employed in this study is North American model of engagement: cognitive, behavioural and emotional dimensions. Accordingly, in this study 'engagement' refers to those three types of engagement in learning.

## 2.4 Self-determination theory

SDT was proposed by Deci and Ryan in 1985. Niemiec and Ryan (2009) describe SDT as a macro-theory which considers human motivation, feelings and improvement. Figure 2.1 illustrates the major components of the theory.



**Figure 2.1: The self-determination continuum showing types of motivation with their regulatory styles, loci of causality and corresponding processes**

Adapted from Ryan and Deci (2000, p. 72).

To the left end of the spectrum is amotivation, in which an individual is completely non-autonomous. In the middle are several levels of extrinsic motivation: external regulation, in which motivation is entirely external and regulated by compliance, conformity and external rewards and punishments; introjected regulation, in which the motivation is somewhat external and is driven by self-control, efforts to protect the ego and internal rewards and punishments; in identified regulation, the motivation is somewhat internal and based on conscious values and that which is personally important to the individual; and integrated regulation, in which the individual is beginning to be motivated by intrinsic sources. The right end of the continuum shows an individual totally motivated by intrinsic sources. In intrinsic regulation, the individual is self-motivated and self-determined, and driven by interest, enjoyment and the satisfaction inherent in the behaviour or activity they engage in.

Kusurkar, Croiset, and Ten Cate (2011) noted that intrinsic motivation can be seen when a person is involved in a task with a real interest. This type of motivation is the expected type of motivation for learning because it is linked with deep learning. Intrinsic motivation is considered as “the inherent tendency to seek out novelty and challenges, to extend and exercise one’s capacities, to explore, and to learn” (Ryan & Deci, 2000, p. 7). Three basic psychological needs are described in SDT. Further Ryan and Deci (2000) stated that these needs are used in different contexts; for example, healthcare, education, work, sport, religion and psychotherapy.

Chirkov and Ryan (2001) argued that, though these three needs are acceptable in almost all cultural settings, there has been some disagreement regarding the cross-cultural application of relatedness and competence needs, and the autonomy need is extremely arguable. On the whole, competence refers to one’s understanding of how to obtain a variety of results and also one’s assessment of their ability to obtain a variety of results. Relatedness refers to good relations with others in a community group. Autonomy refers to starting and controlling one’s personal actions (Ryan & Deci, 2013).

“SDT is concerned not only with the specific nature of positive developmental tendencies, but it also examines social environments that are antagonistic toward these tendencies” (Ryan & Deci, 2000a, p. 69). Moreover, Niemiec and Ryan (2009) argued that when the teaching-learning process satisfies students’ autonomy, competence and relatedness, they are likely to be more intrinsically motivated.

The fulfilment of psychological needs differs because of cultural factors. SDT theorists believe that people across cultures need to satisfy their primary psychological needs (Ryan & Deci, 2000a). Niemiec and Ryan (2009) highlighted two aspects of SDT relevant to teachers. Firstly, SDT gives an integrated conceptualisation of the way that individuals internalise outside demands and, secondly, it is centred on contextual factors related to the enhancement of student motivation, engagement and achievement. Niemiec and Ryan (2009) found that when teachers’ instructions and learning activities are supportive of autonomy, it increases students’ intrinsic motivation. By contrast controlling learning environments decrease students’ intrinsic motivation.

This study is based on the early adolescence stage. In early adolescence, students' cognitive skills and sense of identity are enhanced. Therefore, autonomy is essential for early adolescent students. During this stage students have become interested in making decisions and managing their own activities. If the classroom allows students to make decisions and choices for their learning, their autonomy needs are fulfilled. Unfortunately, according to research (Reeve & Jang, 2006; Vansteenkiste et al., 2004) middle school students get very few chances to increase their self-determination compared to their primary years. Further Deci, Vallerand, Pelletier, and Ryan (1991) summarised contextual factors which help to increase autonomy of students. Student choice over activities in which to engage is a primary relationship with their perception about self-determination. Due to extrinsic rewards such as deadlines, and stress the importance of evaluations, students' self-determination is diminished and their intrinsic motivation decreases (Vansteenkiste, Simons, Lens, Sheldon, & Deci, 2004).

Furthermore, Neimiec and Ryan (2009) found there is a link between the teaching-learning process leading to student satisfaction, which fulfils their basic psychological needs, and intrinsic motivation and autonomous types of extrinsic motivation. According to Ryan and Deci (2000), those three needs (autonomy, competence and relatedness) can facilitate positive community development and individual well-being.

#### **2.4.1 SDT alternatives and limitations**

Although SDT was chosen as the theoretical base of this study, it is useful to justify the selection of that theory. Therefore, a comparison of SDT with some other needs theories, specifically, similarities and differences, and the limitations of SDT will be reviewed in this section.

Deci and Ryan (2000) emphasised that SDT differs from other needs theories in two aspects: needs are identified as inherent and needs are linked to increase in psychological development, internalisation and well-being. Needs, in SDT, are considered as inherent basic tendencies that are common to everyone (Ryan & Deci, 2000a). McClelland's (1985), in his acquired needs theory, identified the need for success, authority and relationship. From McClelland's perspective, individuals should vary in the way they

present and control their needs. However, in SDT, each need can be seen in everyone, and all the needs are similarly important.

Hull (1943) and Murray (1938) presented two theories of needs, considered as macro theories of motivation. According to Hull, inherent psychological needs such as food, sex, and water, are centred in non-nervous-system tissue deficits, and those needs push human beings to action. According to Murray, needs are at the psychological level more than the physiological level. He viewed them mainly as necessary rather than intrinsic. As hypothesised by Murray, anything that moves one to action is a need. Deci and Ryan (2000) were of the opinion that even though motives may energise acts, they are not needs from the Hullian or SDT perspectives. Deci and Ryan's SDT definition of needs is consistent with Hullian thought and with Murray's person logic approach because the SDT approach is bounded in an organismic-dialectical meta-theory.

Motive Disposition Theory (MDT) is based on Murray's (1938) theory, and was later expanded by the perspectives of McClelland, Atkinson and others. Atkinson (1982) states that MDT research mainly centres on a persons' dissimilarities in motives and their consequences in a variety of outcomes and behaviours. Although MDT and SDT seem apparently mismatched, a close examination reveals they address two sides of the same phenomena.

SDT differs from Maslow's (1943) hierarchy of needs theory. In Maslow's theory, needs higher in the hierarchy become more stimulated when needs at the base are fulfilled. However, SDT research is likely to be focussed on need fulfilment more than needs power. While some needs theories' focal point is on the strength of needs (McClelland, 1985; Murray, 1938), SDT considers the satisfaction of needs (Deci & Ryan, 2000). SDT also distinguishes 'needs' from 'desires' (Deci & Ryan, 2000). From the SDT perspective, desires, that is, power, money and status cannot be considered as 'needs'.

Vallerand (2000) presented a hierarchical model of motivation. It included the varied ways of motivation at three levels of generalisation: how intrinsic and extrinsic motivations are related, and determinants and outcomes of those levels. Vallerand (2000) argues there is a much conformity between SDT and hierarchical models of intrinsic and extrinsic

motivation. However, there are some areas where the two classes of models vary. The hierarchical structure of a model tries to introduce new motivational processes; According to the hierarchical model, interactions exist between the levels of motivation but SDT does not consider the matter of the interaction between the different levels of motivation. In SDT, there are two motivational orientations, at the causality-orientation and the domain-specific levels, but it does not indicate the interaction of those motivational orientations.

Attachment theory has conventionally stressed that individuals' attachment patterns are enhanced in connections with primary caregivers, while SDT stresses more the direct social context (Deci & Ryan, 2000). In relation to goal theories, learning goals and task involvement are associated properly with intrinsic motivation, but performance goals and ego involvement are not aligned properly with extrinsic motivation. However, according to SDT there is a full assembling of extrinsic motivations that vary significantly in their link to self-determination (Deci & Ryan, 2000). Therefore, as discussed in above, SDT is clearly different from other needs theories.

When considering the limitations of SDT, most researchers have focussed mainly on autonomy and competence (Deci & Ryan, 1991; Vallerand, 1997). The findings of many researchers (Vallerand, Guay, & Blanchard, 2000) support SDT and reveal that these two types of needs play the main roles in motivation. However, the role of relatedness is not so essential in the motivational progression in SDT, although relatedness can play a main role in motivation, particularly if individuals are involved in social works.

Deci and Ryan (2000) note that SDT might not be able to identify the individual differences in the basic psychological needs. However, an examination of the individual differences in psychological needs is worthwhile as it might facilitate better motivational processes. Broeck, Ferris, Chang, and Rosen (2006), in their review of SDT, considered that those three needs generally represent the main criteria for basic psychological needs. Nevertheless, they found that further wide-ranging research is needed in the field of organisational settings in relation to SDT.

SDT research has not significantly focused on adolescents. Therefore, adolescents' perceptions about basic psychological needs satisfaction should be researched further

(Leversen, Danielsen, Birkeland, & Samdal, 2012). Leversen et al. (2012) found that according to the leisure activity background, among the three psychological needs, competence and relatedness fulfilment are likely to be the most significant for adolescents' life satisfaction. Further, they stated that the relationship between autonomy and life satisfaction did not remain substantial. Self-efficacy theory (Bandura, 1977) did not consider 'autonomy', and it only considered the concept of competence out of the three basic psychological needs (Deci & Ryan, 2000).

Veronneau, Koestner, and Abela (2005) emphasised that competence is the most significant psychological needs during middle childhood as well as in early adolescence. However, the research literature indicates that, during their transition periods, adolescents need to feel more autonomous (Eccles, Wigfield, Harold, & Blumenfeld, 1993). However White (1963) exposed that competence is a basic human tendency that lies behind self-esteem and self-confidence. According to Bandura (1989), no genuine place exists for autonomy in a health agency theory. However, Hilgard (1987) almost disregarded the research based on intrinsic motivation and did not identify motivation as a separate area in psychology.

However, needs theorists are divided regarding the SDT perspective. Whether needs are internal or external is also a divisive issue (Leversen et al., 2012). Under SDT, there is an assumption that the fundamental structure of human needs can be seen throughout the process of human development (Deci & Ryan, 2008). However, there is disagreement as to whether these needs are few or countless in number (Sheldon, Ryan, & Reis, 1996). Further Sheldon and Schuler (2011) questioned whether needs are gained through learning processes or are an outcome of human heredity.

The psychological need concept has been conceptualised in many ways in the context of diverse theories. Therefore, needs theories are usually debatable (Ryan, 1995). While some theorists consider needs as inherent and global in individuals (e.g., Goldstein, 1939; Maslow, 1943), other theorists perceive needs as acquired individual differences in motives (Atkinson, 1982; McClelland, 1985).

In summary, SDT takes needs as intrinsic (Deci & Ryan, 2000). Moreover, unlike the other learning theories, SDT defines needs at the psychological level rather than the physiological level. As discussed above, though SDT is a significant theory of motivation, there are alternatives to SDT a number of limitations to the theory.

SDT is the foundation theory in this study. Whether the principles of SDT are being employed in the selected schools for this study will be discussed more fully in the qualitative data analysis in Chapter 5.

## **2.5 Motivation and Engagement Scale-Junior School**

MES-JS measures primary and secondary school students' (ages 9-13) motivation and engagement to learn. In this study, the MES-JS (Martin, 2014) was used to identify the least motivated and engaged students. After identifying them, school-related conditions impacting motivation and engagement in learning through the SDT perspective (intrinsic motivation) were examined.

Martin (2014a) notes there have been a number of conceptual offerings to the study of motivation and engagement. Among the more dominant theories are attribution theory, self-worth motivation theory, need achievement theory, control theory, self-efficacy theory, expectancy-value theory, SDT and motivation orientation theory.

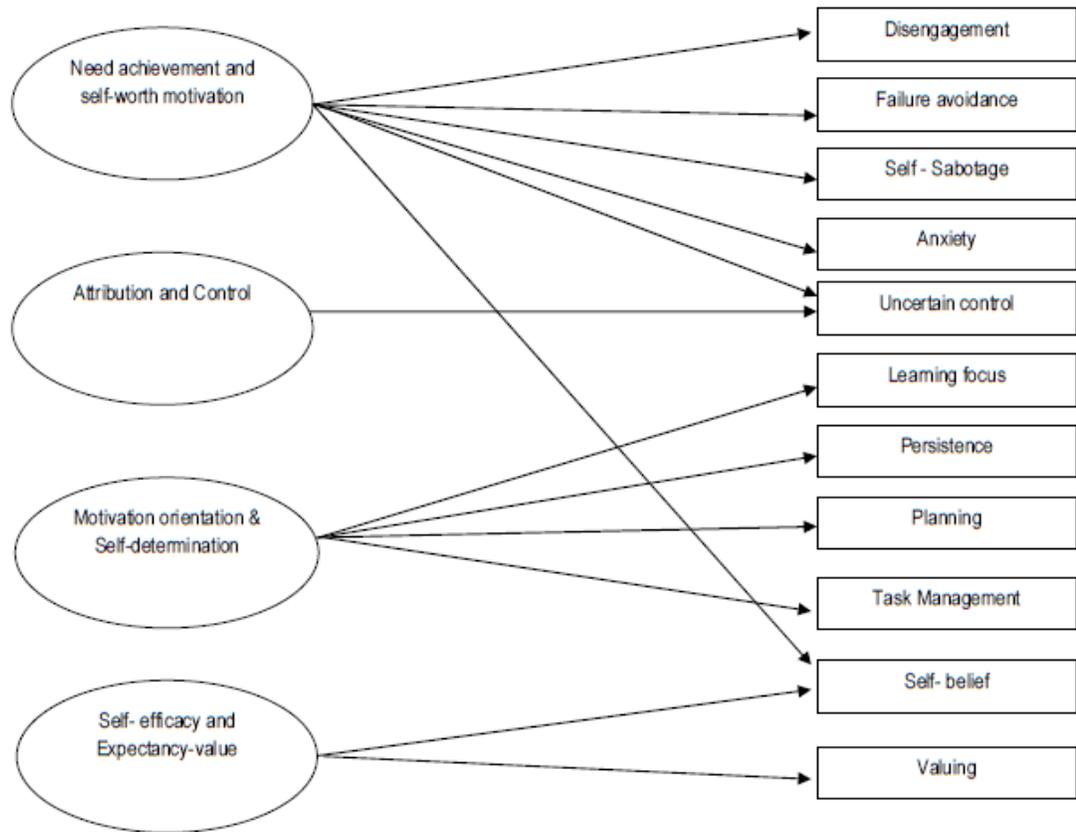
Martin (2014a) also states:

[T]aken together these theories tell us: (a) why students do what they do, (b) how they do it, (c) their confidence in being able to do it, (d) their ability to surmount obstacles and challenges before them, and (e) their capacity to pick themselves up after academic setback or hold their ground in the face of study pressures. (p. 23)

The principle rationale for forming MES-JS (Martin, 2014) was to incorporate a number of academic viewpoints and develop a structure that is actionable by teachers and understandable for students. Martin (2014a) sought to fill the need for a motivation and engagement scale:

However the theories mentioned above are usually not articulated or conceptualised in a way that is actionable for educators or understandable for students. Perhaps, more importantly, theory and concepts within it must be packaged in a way that can be communicated by educators to students. This brings into consideration the need for a model of motivation and engagement that can be readily harnessed by educators to help motivate and engage their students. Ideally, students would also readily harness this model. Such a model is built in two steps. First, translate theory and key concepts within it into a manageable set of constructs that is readily identifiable by educators and students alike. Second, package these constructs into a structure that is relatively simple to articulate and represent. (p. 28)

A framework that reproduces those theories is illustrated in Figure 2.2.



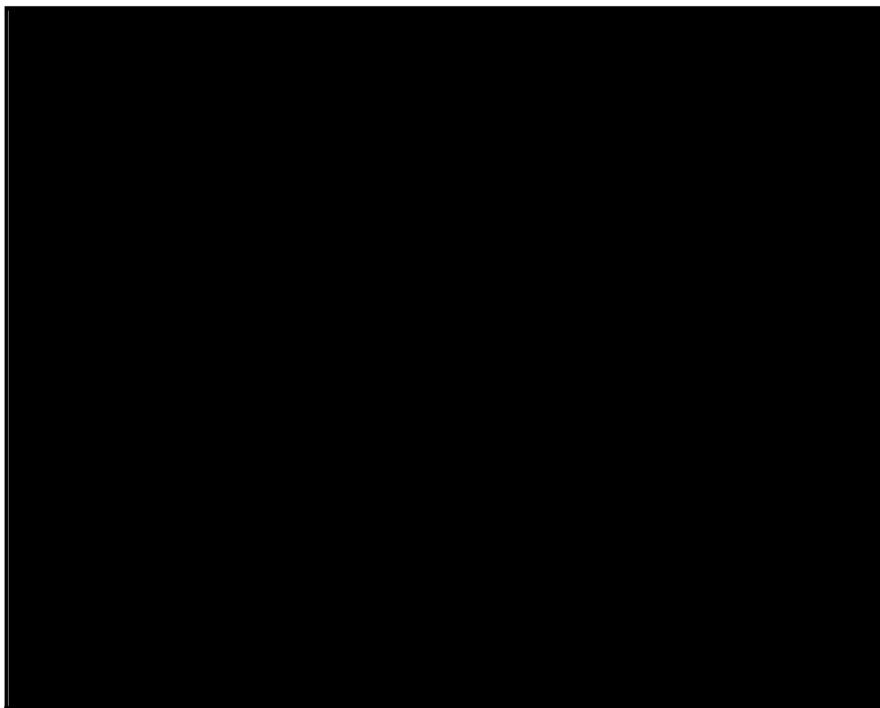
**Figure 2.2: Central theoretical perspectives and associated constructs**

Adapted from Martin (2014a, p. 29).

Martin (2014a) noted that the second step in the formation of a measure was to propose a simple separation of measures into factors. These are called *boosters* (or adaptive dimensions), *mufflers* (or impeding/maladaptive dimensions), and *guzzlers* (or maladaptive dimensions). Boosters are consistent with booster thoughts and booster behaviours. Booster thoughts are consistent with self-belief, valuing and learning focus. Booster behaviours are consistent with planning, task management and persistence. Mufflers are consistent with anxiety, uncertain control and failure avoidance, while guzzlers are consistent with self-sabotage and disengagement.

On this scale, categories of scores centre on: (1) self-belief, valuing, and learning focus (booster thoughts); (2) planning, task management, and persistence (booster behaviours); (3) anxiety, failure avoidance, and uncertain control (mufflers); and (4) self-sabotage and disengagement (guzzlers). Accordingly, the MES-JS (Martin, 2014) measures six motivation and engagement boosters, three mufflers and two guzzlers; altogether, 11 factors are measured. Each of the 11 factors consists of four items, making up a 44-item Likert scale-type tool. For every item, students assess on a level of 1-‘Disagree strongly’, 2-‘Disagree’, 3-‘Neither agree nor disagree’, 4-‘Agree’ and 5- ‘Agree strongly’.

Boosters are the thoughts and behaviours that reflect enhanced motivation and engagement in learning. They comprise self-confidence, a view that school is significant, being centred on learning, scheduling schoolwork, and trying hard. Motivation and engagement mufflers refer to constrained or impeded motivation and engagement. Motivation and engagement guzzlers refer to condensed motivation and engagement. Taken together, these boosters, mufflers and guzzlers comprise the Motivation and Engagement Wheel (Martin, 2003, 2005, 2007, 2009, & 2010) as illustrated in Figure 2.3.



**Figure 2.3: Motivation and engagement wheel**  
Adapted from Martin (2014a, p. 31).

Researchers can use the wheel with regard to the situational demands of the research project (Martin, 2014). Therefore, in this research, the wheel was considered in terms of motivation and engagement. Accordingly, booster thoughts equate to positive motivation, booster behaviours equate to positive engagement, mufflers equate to negative motivation and guzzlers equate to negative engagement.

The MES-JS created by Martin in 2014 was employed in this study to examine early adolescents' motivation and engagement in learning. As discussed in Chapter 4, it was aimed at developing validated scales that would allow the measurement of student engagement and motivation in a Sri Lankan school context. This section discusses the most significant aspects of research question one.

### **2.5.1 Studies conducted employing MES**

In this section, different studies conducted using MES-JS (Martin, 2014) and Motivation and Engagement Scale-High School (MES-HS) (Martin, 2014) will be discussed. The following studies examined the differences of gender and age on students' motivation and engagement in learning using motivation and engagement scales developed by Martin (2014). The current study also identifies the age and gender differences of students in relation to their motivation and engagement in learning. Therefore, these studies provide a light to the current study.

This section is aligned with the research question two (What are the levels of motivation and engagement in learning amongst junior secondary students in low socio-economic districts in Sri Lanka?), three (Do levels of motivation and engagement in learning vary with gender for junior secondary students in low socio-economic schools in Sri Lanka?), four (Do levels of motivation and engagement in learning vary with ethnicity for junior secondary students in low socio-economic schools in Sri Lanka?), and five (What differences exist between schools in the levels of motivation and engagement in learning for junior secondary students in low socio-economic districts in Sri Lanka?).

Martin and Marsh (2005) studied 964 junior and middle high school students in years 8 and 10 from five co-educational government schools in Australia. Findings showed that educational motivation and engagement of boys and girls were similar whether they had

male or female teachers. Most difference was at the personal level. Regarding gender, Girls had higher levels of motivation and engagement at a statistically significant level. This study also examined the gender effect on motivation and engagement in learning and found that girls had comparatively higher levels of motivation and engagement than boys.

Martin and Hau (2010) also conducted research using 528 Hong Kong Chinese 12–13 year-olds and a sample of 6,366 Australian 12–13 year-olds. Chinese students showed lower levels of achievement motivation than Australian students to various extents. However, the trend of both cohorts of students did not seem to be noticeably different according to motivation formation, outline and relations. In this study, two international group of students' motivation and engagement levels were examined. In the current study there were also two ethnic groups represented: Sinhala and Tamil. Therefore, this study provides a justification for doing comparison among two ethnic groups in relation to students' motivation and engagement in learning.

Collie, Martin, and Curwood (2016) carried out a study with a sample of 781 male high school students from grades 7, 8, 9, 10, 11 and 12 from one government school located in Sydney. The students' average age was 14.6 years. Their study found that the adaptive motivation and engagement aspects were associated positively with several writing and literacy outcomes, whereas the maladaptive factors tended to be negatively connected. Though, the current study did not examine specific outcomes, such as writing and literacy, it did examined adaptive and maladaptive motivation and engagement aspects.

Moreover, Green, Martin, and Marsh (2007) conducted a study involving 1,801 students in six Australian government high schools in grades 7 and 8. All the schools were situated in urban parts of Canberra and Sydney and the students were mainly from middle class backgrounds. The mean age of students was 14.4 years. The level of specificity varied as a function of the exacting academic motivation construct, for example, between subjects' correlations for more "trait-like" constructs, such as "anxiety" was comparatively higher among science, mathematics, and English. This study examined students' subject specific motivation and engagement levels. The current study is different from the study by Green et al. because it examined motivation and engagement in learning in general.

Martin (2012) examined the effect of gender and age on high school motivation. He sampled 33,778 high school students in 92 Australian schools (48 government and 44 independent schools; 63 co-educational, 15 single-sex girls' schools, 14 single-sex boys' schools). Students' age was 12-18 years and the mean age was 14.43. He found significant gender and age effects, which resulted from the interaction between gender and age. Females' motivation and engagement were mainly higher than males. Also 12-13 year-olds' motivation and engagement levels were higher than 14-15 year olds'. Findings from the interaction effects showed that the motivation and engagement of males and females decreased between the ages 12-13 years and 14-15 years. However, the motivation and engagement of most female students improved in later adolescence, while this was not the case for male students. This study also examined gender effect on motivation and engagement in learning and similarly found that girls had comparatively higher levels of motivation and engagement than boys, particularly improving in later adolescence. But, the current study did not examine motivation and engagement in different age groups, and only Grade 8 students were examined.

Bugler, McGeown, and St Clair-Thompson (2015) investigated gender disparities in adolescents' academic motivation and their behaviour in the classroom. They sampled 750 grade 7-11 pupils (384 boys and 366 girls) aged 11-16 (mean age of 14.0) from five secondary schools in the UK. They found girls normally showed higher levels of academic motivation. They also found that levels of academic motivation of the boys were considerably more strongly linked with teacher reports of classroom behaviour. In addition, Bugler et al. reported that the cognitive parts of boys' motivation were greater predictors of their behaviour in the classroom than behavioural parts; while the, behavioural parts of girls' motivation were greater predictors of their behaviour. This study found similar results to the above two studies concerning students' motivation and engagement in relation to gender but did not examine students' classroom behaviour.

## **2.6 Studies on low socio-economic status (SES) students' disengagement in learning**

The research literature shows that a considerable number of students from disadvantaged backgrounds display indicators of disengagement; for example, high absence (Hancock, Shepherd, Lawrence, & Zubrick, 2013), poorer classroom behaviours (OECD, 2012), and premature school leaving (Rumberger & Lamb, 2003). Most types of disengagement, for example, absence, troublesome behaviour and low school relations, are connected with lack of achievement. This has important implications for the students' school experience (Hancock & Zubrick, 2015).

At the individual student level, low SES students present with cognitive issues, particularly short concentration periods and higher levels of distractibility (Alloway, Gathercole, Kirkwood, & Elliot, 2009). According to Murray, Mitchell, Gale, Edwards, and Zyngier (2004), low SES is a major factor among high risk of disengagement categories in the middle years of schooling.

When considering the family factor, children in low SES families show lower achievement levels over all school years (Hancock et al., 2013). Gray and Baxter (2010), emphasised that low SES families might be deficient in the essential resources to support their children, and increasing stress in those families is associated with children's lower achievements in learning. Similarly, low SES adolescents get lower grades and tend to be drop out of education (Hauser, Simmons, & Pager, 2000). In high income countries, children from low SES families have a higher chance of academic failure (Fergusson, Horwood, & Boden, 2008). Further they have a greater likelihood of having low SES in later life (Matthews, Gallo, & Taylor, 2010).

Kuh, Ben-Shlomo, Lynch, Hallqvist, and Power (2003) found that a low SES family background is the prime indicator and risk aspect for having less education. Disadvantaged students do not achieve as well educationally as their privileged peers (Reardon, 2011; Steele, 2010). Families who have elevated poverty, high joblessness, and live in low educational level neighbourhoods have been found to employ fewer study-focussed activities with their children (Banarjee, 2016). Nonoyama (2005) conducted a

cross-cultural study over 40 countries and found that, in all countries, family SES and background effects had a bigger influence on student achievement than SES on its own or school impacts. Further Belachew et al. (2011), in his study of 13-17 year-old adolescents in Southwest Ethiopia, found that family food insecurity was clearly associated with school absenteeism and adolescents' poor academic performance.

Hanson et al. (2011) conducted a study using 1,006 US students and found neighbourhood financial difficulties were a significant predictor of students' lower levels of achievement in mathematics. They found lack of role models, teachers, poor learning resources, and aggressive and violent behaviours as some of the reasons for this situation. According to Basch (2011), aggression and violence lessen school connectedness and increase absenteeism.

In relation to the school factor, which is more relevant to the current study, Irvin, Meece, Byun, Farmer, and Hutchins (2011) conducted a study of 60 high-poverty schools and found that the basic factor in student motivation and achievement is not the home background of students but the school and the teacher. Similarly, Finn and Rock (1997), in their investigation of more than 1,800 poor students found that school engagement was the main factor in determining whether a student continued in school or not. Bruner (2014) studied factors affecting lower achievement of low SES students via a six-country sample and suggested that factors related to the student, teacher, classroom and school are the causes of dissimilarities in achievement. Higher learning ambitions, empathic consideration and optimism for the future are considered as defensive factors contributing to the educational resilience of students in SES (Gizir & Aydin, 2009). Because the current study also considers school-related conditions impacting students' motivation and engagement in learning, the Gizir and Aydin study informs on the relevant factors.

Gemisi and Lu (2014) conducted a study employing a 2,009 base year group from the Longitudinal Surveys of Australian Youth. The sample represented 15-year-old students nationally. Altogether 14,251 students and 353 schools in Australia were involved in this study. They found that socio-economic status is a strong predictor of emotional engagement, students with higher SES showed higher levels of emotional engagement with their school. There are two Sri Lankan low socio-economic groups represented in the

current study. The findings by Gemisi and Lu indicate the likely findings for the current study of low socio-economic areas students' engagement levels.

Johnson-Brown (2014) conducted a study employing all 11<sup>th</sup>-grade students in West Virginia and found that the size of the school and rural location of the school had an effect on examination scores. Students from larger schools achieved better results, and the achievement in rural schools was lower than in urban and sub-urban schools. Students' motivation and engagement had an influence on their achievement (Covington, 2002; Di Domenico & Fournier, 2015; Salinas-Jimenez et al., 2010; Walker, Green, & Mansell, 2006; Williams, 2000). Their findings indicate likely results for this study on how rural areas affect students' achievement.

When considering teachers' influence on lower SES students, Whitehead (2006) found that the lowest SES quartile students are regularly absent from school because of their fear of being embarrassed in the classroom and also because of their teachers' low expectations of their achievement. Positive teacher expectations, help and motivation have beneficial developmental impacts on students despite their vulnerable low SES situation (Sorhagen, 2013). Archambault, Janosz, and Chouinard (2012) argue that teachers' comprehension of student views, encouraging relations and a better classroom dynamic lead to improved achievement by lower SES students. As stated by Hoguebe and Tate (2010), teacher excellence in high poverty schools remains a significant policy aim for restructuring and development. Support given by the teacher for lower SES students might even assist to modify the negative relationship between poverty and educational achievement (Little-Harrison, 2012; Liu & Wang, 2008). An enthusiastic teacher who has a higher level of self-efficacy can disregard lower SES, poverty or adversities and assist in creating a friendly learning situation (Freitas, 2013). In the current study, which examines school-related conditions impacting students' motivation and engagement in learning, the teacher is expected to be an important causal factor.

In summary young students from deprived environments frequently face numerous hurdles that obstruct their learning. Their position worsens if they do not have helpful surroundings in school and in their society (Banerjee, 2016). In this literature review, it has been found that family (including neighbourhood), school and teacher are directly

associated with students' engagement in learning in lower SES schools despite individual factors (e.g., self-concept). Therefore, these factors must be improved to increase lower SES students' engagement (as well as motivation) in learning to enhance their participation in learning.

## **2.7 School-related conditions impacting students' motivation and engagement in learning**

The current study investigates how school-related conditions impact early adolescents' motivation and engagement to learn. In this section, some of the key school-related conditions impacting students' motivation and engagement in learning globally will be discussed to enable a clear understanding about the phenomena. These include school transitions, student-teacher relatedness, peer-relationships, academic achievement, curriculum, and psychology. This section is aligned with the research question six (What school-related conditions impact upon junior secondary students' motivation and engagement in learning in low socio-economic schools in Sri Lanka?).

### **2.7.1 School transitions**

Symonds and Hargreaves (2016) highlight that school transition is a noteworthy life experience for many early adolescents. Though this factor is not directly linked to the Sri Lankan educational context, when understanding global trends about early adolescents' motivation and engagement, reviewing this factor is important. In the USA, UK and other parts of Europe, adolescents' feelings about their school and the importance they give to the school decreases upon transition to secondary school (Stroet, Opdenakker, & Minnaert, 2013; Symonds & Galton, 2014). According to stage-environment fit theory (Eccles & Midgley, 1989), this occurs because of a disparity between their developmental needs and new school conditions. After school transition, there is a tendency for a declining relationship with teachers while, the relationship with peers increases (Symonds & Galton, 2014). Moreover, during transition, students exhibited a stronger relationship between the school environment and their self-concept (Symonds & Hargreaves, 2016).

The stress connected with school transition puts further pressure on adolescents (Gniewosz, Eccles, & Noack, 2011). During school transition, students experience anxiety

and have concerns about their future schooling (Gray, Galton, McLaughlin, Clarke, & Symonds, 2011; Measor & Woods, 1984). Symonds, Long, and Hargreaves (2011) found that transitioning adolescents stated they expected to become more mature before school transition and develop vocational ambitions when they started their secondary school curriculum.

Symonds and Hargreaves (2016) found that students' relations with teacher and peers were decisive factor in determining emotional engagement or disengagement. Thus, this is a factor that can be taken into account when structuring strategies to enhance relationships and making the learning environment more pleasurable.

### **2.7.2 Student-teacher relatedness**

Student-teacher relatedness is important in any educational context when deciding students' motivation and engagement in learning. Most research investigating the ways in which teachers maintain student motivation has been based on a single perspective (Schmakel, 2008) using quantitative or observational methods. Roorda, Koomen, Spilt and Oort (2011) carried out a meta-analysis of the impact of teacher-student relationships on student engagement and achievement. Those findings showed that student motivation was improved if the teacher-student connection was excellent, particularly for in-danger, low socio-economic young people. According to Ryan and Patrick (2001) and Schmakel (2008), teachers play a very important role in promoting adolescents' educational motivation. However, as emphasised by Eccles and Roeser (2011), many adolescents do not experience that kind of interesting teaching practice. This situation can result in a disparity among young adolescent experiences and impact on their fundamental and developmental needs.

Research (Knesting, 2008; Wilson, 2007) suggests that caring teachers and highly regarded relationships lead to students being engaged in their learning, performing at high levels, and remaining in school. Furthermore Rhodes, Grossman and Resch (2000) stated that relationships with teachers are especially significant to early adolescents who frequently experience changes in their feeling of self and are stressed by their developing relations with parents and peers. As found by Goodenow (1993), students were engaged

in class when they perceived strong support from their teachers. However, Hardre and Sullivan (2009) found that nearly all teachers believe they can influence student learning, but they are doubtful about their ability to control students' motivation.

The National Research Council (2004) argued that teachers can enhance student motivation by encouraging students to do their best. This is particularly important for low-income students who do not get as much encouragement in their academic pursuits as their higher income peers. Moreover, the Council stated that teachers can also enhance motivation by having high expectations regarding their students doing homework, attendance, behaviour, and educational achievement. Fulmer and Turner (2014) found that middle school teachers might enhance student motivation by showing concern and by fostering teacher-student relationships and supportive peer relations.

Roorda et al. (2011) conducted a meta-analysis on the impact of teacher-student relations for student engagement and their achievement. The results exposed that student motivation was improved if the teacher-student association was of high quality, particularly for in-danger adolescents from poor backgrounds. Students tend to be motivated when their teachers have high prospects for them and trust in their ability to flourish (Adkins-Coleman, 2010; Eccles & Roeser, 2011; Wentzel & Wigfield, 2009).

Further teachers can demonstrate their high expectations by creating clear principles for achievement, creating education goals comprehensible to students, challenging them, modelling self-confident behaviour, and collaborating with them (Adkins-Coleman, 2010; Corbett, Wilson, & Williams, 2002). Researchers (e.g., Daniels & Arapostathis, 2005; Wentzel & Wigfield, 2009) found that if students' sense teacher expectations are unreasonably high or impractical, their motivation might reduce. However, according to Davis (2006), not every teacher is able to form immediate quality relationships with their students. A considerable number of middle school teachers were unsure whether increasing such relationships with students was their task, or they were unaware of the possible influence those relations have on student motivation and achievement.

### **2.7.3 Peer relationships**

The global literature on students' motivation and engagement indicates that peer relationships are important. Azmitia (2002) notes that for early adolescents, friendships can give a sense of belonging and contribute to their overall identity. In addition, Wang and Eccles (2013) showed that students with positive peer relationships are more behaviourally and emotionally engaged at school.

There are many studies on the impact of peer relationships on educational motivation and adjustment as pupils' transition to middle school (Nelson & Debacker, 2008; Wang & Eccles, 2013). Nelson and Debacker (2008) investigated connections between perceived student relationships and achievement motivation in middle school science classes. Their study examined, among other factors, how students' sense of the peer environment and belongingness in the classroom might impact performance-related goals and self-efficacy. In summary, the researchers reported that class relatedness had a large influence on the motivation to learn and those students who thought they were appreciated in the classroom showed higher levels of self-efficacy and proficiency.

Kingery, Erdley, and Marshall (2011), investigated peer reception and companionship quality as a predictor of modification over the transition to middle school and found that both these factors play a significant role in student loneliness and school involvement. Battin-Pearson et al. (2000) found that adolescents who link with disruptive peers might tend to become disengaged from learning tasks and ultimately leave school. Similarly, Nansel et al. (2001) found that being a persecutor or a sufferer of harassment was also linked with unenthusiastic academic adaptation. Moreover, Ma, Phelps, Lerner, and Lerner (2009) confirmed that youth involved in bullying tend to be disconnected from school and have poorer performance than students who do not engage in harassing behaviour.

### **2.7.4 Academic achievement**

The research literature indicates that motivation and engagement are possible predictors of students' academic achievement. As reported by Lamb, Walstab, Teese, Vickers, and Rumberger (2004), academic achievement plays a major role in the decision to leave

school; the relationship between poor educational performance and leaving school is widely reported in the global literature (e.g., Alexander, Entwisle, & Olsen, 2001).

Williams (2000), who conducted a large cross-sectional study, found that student engagement influences differences in student achievement in school and classroom settings. Thus, student engagement is a possible predictor of student achievement in a variety of ways (Walker et al., 2006).

Motivation is also crucial to the success of a college student in terms of academic achievement and future accomplishments (Salinas-Jimenez et al., 2010). Students who are more intrinsically motivated have been found to exhibit better outcomes in academic achievement (Di Domenico & Fournier, 2015).

Further, Koseoglu (2012) found that there was a statistically significant difference between male and female students in academic motivation: female students are generally more intrinsically and extrinsically motivated than males students. There is, therefore, documented evidence that motivation is an important determinant of students' achievement (Beal & Stevens, 2007; Broussard & Garrsion, 2004; Zhu & Leung, 2011).

### **2.7.5 Curriculum**

Some research (e.g., Eccles & Wigfield, 2002) reveals that motivation becomes more differentiated over school subjects by age, with students gradually becoming more motivated to learn subjects in which they are successful. Gottfried (1990) conducted a longitudinal study of students' motivation and achievement in reading and mathematics and found that motivation for learning mathematics was predicted by previous mathematics achievement and motivation.

Moreover a study of 1,125 Year 9 and 10 students in Queensland (Australia) secondary schools exposed that a deficiency in curriculum subject choices in the lower secondary school causes disappointment in some students who worry that the secondary school will not be able to prepare them for the job training they seek (Pitman & Herschel, 2002). Lamb, Dwyer, and Wyn (2000) found that a considerable number of premature leavers

reported that the key reason for departing school was not providing follow-up study courses by the school.

Researchers, including Patrick, Ryan, and Kaplan (2007) and Wang and Holcombe (2010), focussed on motivational regulation in the lower secondary school classrooms and found that task-oriented classrooms are linked to a decrease in motivation and achievement in the junior secondary school at the same time as mastery-oriented classrooms are linked with improvements in motivation and educational achievement. Further Jayaweera and Gunawardena (2013) indicated that curriculum reforms should focus strongly on transforming the learning culture in schools to a more activity-oriented approach that challenges junior secondary students and maximises their active participation in Sri Lankan society.

### **2.7.6 Psychological stressors**

This study is based on early adolescents, who face a number of difficulties because of their developmental stage, including psychological stressors that might impact their motivation and engagement in learning. A developmentally suitable school environment is necessary to fulfil the needs of junior secondary students and assist them to develop constructive learning outcomes (Davis, 2003). According to researchers (e.g., Hester, Gable, & Manning, 2003; Jackson & Davis, 2000; Manning, 2000) such a school environment is characterised by a suitable and thorough curriculum, learning connected to the experiences of students, and an acknowledgement of the personal learning needs of students. In the current learning environment, impacted by the importance placed on high-stakes testing, schools emphasise drill and practice, fact memorisation, test readiness and teacher-centred instruction intended to cover material for frequent exams (Solley, 2007). Hardre and Reeve (2003) studied a related construct, perceived competence, and found it to be considerably predictive of intentions to remain in school.

Research reveals that junior secondary students are anxious about a diversity of factors, which contributes to reducing their motivation and educational achievement; such as increased academic requirements and quantity of homework, numerous teachers and personalities, and peers. These and other issues directly impact students' emotions, stress

and fear, leading to a decline in motivation and achievement (Anderman, Maehr, & Midgley, 1999; Bullock & Gable, 2006).

Early adolescent students face difficult challenges at this stage of their educational experience, including external pressures, such as peer and teacher relationships, and the importance placed on high-stakes testing, as well internal pressures, such as uncertain self-efficacy and self-confidence (Dweck, 2006).

Since educators are at the forefront of teaching, moulding, and supporting students, these professionals must be equipped with the knowledge of how and why junior secondary students learn and avoid learning. They must also be skilled in the strategies required to efficiently develop their students' emotional mindset (Feinstein, 2006; Medina, 2008). With suitable coping skills and support, stressors faced by junior secondary students can be managed successfully. However, without a systematic understanding of the conditions necessary to lessen these factors, early adolescent students may experience negative consequences which can last a lifetime (Olson, 2014).

Bronfenbrenner's (1979) ecological systems theory (EST) identifies four levels of influence in the environment for human development: micro system (activities and connections in one's direct environment), the meso system (relationships among the bodies occupied in one's micro system), the exo system (social organisations which have an effect on one in some way), and the macro system (wider cultural ethics, laws and government resources). The first three levels are directly relevant to students' motivation and engagement in learning in relation to school-related conditions.

Using Bronfenbrenner's (1979) EST, Gurtner, Monnard, and Genoud (2001) studied the micro-level factors, like school subjects and the kind of lesson or task, and found that they definitely fit into the most significant parts of the learning situation. Gurtner et al. (2001) also found that the kind of lesson or context is also a significant determinant of motivation and learning. Gerlach (1994) found that group tasks are more valued by students but only if they are persuaded of the educational value of cooperating with peers.

According to Gurtner et al. (2001), teachers' position and behaviours, students' views of the classroom climate and classroom goals, customs and practices relate to the meso level, and kind of school or programme that engages a student belong to the exo-level.

Fry and Coe (1980) found that classrooms with greater teacher support and participation are associated with self-development and high motivation for educational achievement and learning satisfaction. Midgley (1993) found that, when moving up from primary school and adapting to the changes in the organisation and structure of middle or secondary school, involvement in a special programme or section can impact on students' views of school and thoughts about schoolwork. It also influences students' self-esteem (Hirsch & Rapkin, 1987).

There is global evidence that restructuring the curriculum, enhancing teacher education, and all attempts made at the micro and meso levels are part of the solution to the problem of reduced motivation in adolescent students (Gurtner et al., 2001).

## **2.8 Studies using SDT to promote students' motivation and engagement in learning**

SDT is the theoretical basis of this study. Using the theory's propositions, the expected result is improvement in the motivation and engagement of early adolescents from low socio-economic backgrounds who are the least motivated and engaged in schooling. This section will examine studies supporting the propositions of SDT concerning how to increase students' motivation and engagement in learning. Research examples on SDT will be drawn from both non-Asian countries Asian countries. This section of the literature review is aligned with research question seven (What motivational strategies have been taken by the schools to increase students' motivation and engagement in learning in low socio-economic schools in Sri Lanka?).

### **2.8.1 SDT studies in non-Asian countries**

This section discusses SDT studies predominantly carried out in The Netherlands, Germany, Canada, the US and Australia. Stroet et al. (2013) (in The Netherlands) systematically reviewed the impacts of need supportive teaching for early adolescents'

motivation and engagement in learning. They defined need supportive teaching as teachers' arrangement for helping autonomy, structure and participation. Seventy-one empirical studies conducted since 1990 show a significant positive relationship between need supportive teaching and students' motivation and engagement in learning. They further found that, in the majority of the chosen studies, student perspectives were employed to determine need supportive teaching, supporting the SDT proposition that there is a relationship between need supportive teaching and students' motivation and engagement in learning. The current study will further test the relationship between teaching styles and student motivation and engagement in learning.

Tsai, Kunter, Lüdtke, Trautwein, and Ryan (2008) conducted a study to assess German public school seventh grade students' feelings of importance in three school subjects. They found that students were interested in autonomy supportive lessons and, students' interests decreased when controlling lessons were presented. Burton, Lydon, D'Alessandro, and Koestner (2006) found that Canadian students' intrinsic motivation was connected to psychological well-being and self-regulation of educational achievement. The current study further examined early adolescents' intrinsic motivation.

Pintrich and De Groot (1990) conducted a study with 173 seventh grade students from a predominately white, small city school district in south-eastern Michigan, US. The students answered a self-report survey developed by the researchers consisting 56 items on student motivation, cognitive strategy use, and management effort. The researchers showed that self-determination had an effect on students' perceptions that the academic tasks they were engaged in were motivating.

Lepper et al. (2005) examined an ethnically diverse sample consisting of 797 mid-western children in grades six through eight in California, US. They found that it is not whether a child is intrinsically or extrinsically motivated but the amount of motivation reflected in students' actions which determine academic success. This study differs from the current which is focused on the intrinsic motivation of students. Burton et al. (2006) conducted a study on the differences between the impacts of intrinsic and recognised motivation on well-being and achievement. They employed prospective, experimental and implicit methods to research SDT using 241 school children attending schools in Toronto and

regional Ontario, Canada. The study found that it is important to distinguish between intrinsic motivations and identified self-regulatory styles when examining the psychological well-being of students. While this is an interesting finding, it has marginal relevance to the current study which is focused on school-related conditions impacting on students' intrinsic motivation and engagement in learning.

Painter (2011) conducted a study of science education on autonomy, competence and intrinsic motivation (an SDT perspective). That research examined US eighth-grade science data to examine a structural model that hypothesised how recognised autonomy support, recognised competence in science, intrinsic motivation and science achievement are associated. The hypothesised model gave a good fit to the data, with support for autonomy having a positive effect on students' recognised capability in science and intrinsic motivation. The current study seeks to broaden this finding by not limiting itself to the examination of a specific subject but to examining students' motivation and engagement in learning in general.

In research conducted in rural Midwest US, Van Ryzin, Gravely, and Roseth (2009), examined, through an SDT perspective, autonomy, relatedness and engagement as factors influencing adolescent psychological well-being in school. This study found a direct relationship between peer-related belongingness and positive adjustment not influenced by engagement in school, as well as an association between educational autonomy, teacher-related belongingness and engagement in learning. These relationships are of direct interest to the current study.

Zimmer-Gembeck, Chipuer, Hanisch, Creed, and McGregor (2006) examined whether students' competence was supported by school relationships at school and school fit employing 324 adolescents in south east Queensland, Australia. As expected, school-fit influenced the relationship between teacher-student and engagement to some extent. This association is also studied in the current study.

### **2.8.2 SDT studies in Asian countries**

In this section, research conducted in relation to the application of SDT for analysing motivation in the Asian context, in particular, China, Malaysia, India, Indonesia, South

Korea, Japan, Vietnam, and Israel, will be discussed. South Asian countries lack research in this area of study. It is also noteworthy that the studies related to Asian countries are not based on early adolescents or middle school students.

Zhou, Ma, and Deci (2009) conducted two studies applying SDT to examine the motivation to learn of rural Chinese students. The intent was to investigate whether findings of studies in Western individualist cultures would parallel those with an Eastern collectivist background. The findings clearly showed that teachers' autonomy support was connected to increased autonomous motivation. Moreover, it was found that autonomous motivation clearly connects to proficiency, attraction, and selection. The study showed that learning behaviour and student experiences are similar in both cultures. Thaliah and Hashim (2008) examined the construct of Teacher Autonomy Support Scale (TASS) in an English as second language (ESL) classroom in Malaysia and how it impacted students' engagement in the classroom. The sample consisted of 378, 16-year-old students who were chosen from a rural area from 14 day schools. The results showed that teachers' autonomy support was an important predictor of ESL classroom students' cognitive and behavioural engagement. Although these studies are of interest, the current study does not directly examine teachers' support of student autonomy.

Sheldon, Abad, and Omoile (2009) examined the generalisability of five propositions resulting from SDT. They employed adolescent students living in two countries, India (n= 926) and Nigeria (n= 363). Autonomy, competence and relatedness needs were predicted to increase positive class assessments and the general well-being of the students. The study found that both types of autonomy support, maternal and paternal, predicted students' life-satisfaction. The findings show that mature students expect fewer autonomy-supports from parents and teachers. The research also showed that Indian students had better life-satisfaction than students in Nigeria. The current study does not examine parents' autonomy support for students' motivation and engagement in learning, nor students' life-satisfaction.

Maulana, Helms-Lorenz, Irnidayanti, and Grift (2016), using SDT, hypothesised that teacher autonomy, competence and relatedness support are universally critical encouragers for students' concentration in learning. The authors examined the relationship

between the three dimensions of students' perspectives of Indonesian teachers' basic psychological needs support and students' supposed autonomous motivation in secondary school (Grades 10–12). The three dimensions of teacher support were examined by employing a social context questionnaire (n = 202), and a survey (n = 4396) of the motivational element was employed to evaluate autonomous motivation. The authors found that teachers' basic psychological needs support are all connected to autonomous motivation in Indonesian students. Overall, the researchers found that the dimensions of teacher support are associated with Indonesian students' autonomous motivation. This research validates the suitability of SDT in the Indonesian context. The current study, however, does not examine teachers' basic psychological needs support using particular questionnaires and surveys, though it does examine, through semi-structured interviews, whether teachers employ strategies to increase students' motivation and engagement in learning.

Jang, Reeve, Ryan, and Kim (2009) considered the current disagreement of the cross-cultural generalisability of SDT in a study employing 10<sup>th</sup> grade students from a large, middle class, urban secondary school. Their study, from an SDT perspective, investigated whether secondary school students in South Korea were advantaged by autonomy support classroom experiences and psychological need fulfillment. They conducted four studies. In study one, they found that experiences of basic psychological needs supported Korean students' most rewarding learning experiences, and experiences of low autonomy and competence undermined their least rewarding learning experiences. In study two, they found that psychological need satisfaction experiences were linked with fruitful and rewarding student results. Study three reproduced and expanded study two's findings by reporting that the hypothesised model described students' positive results even after adjusting for cultural and parental pressures. Study four reproduced the previous cross-sectional results. This study validated the usefulness of SDT in the Asian context. Similarly, the current study is also expected to validate the SDT in the Sri Lankan context.

Hayashi (2005) studied 461 Japanese university students from junior high school all the way through to university (9 years) to examine their motivational changes. He found that, in the majority of students, motivation declined from senior high school to university. He

also found that a few students were able to maintain high levels of both intrinsic and extrinsic motivation.

Ngo (2015), using SDT, investigated students' motivation for learning English in higher education in Vietnam. She used two studies employing mixed methods to deal with five main objectives. Study 1 employed quantitative scales (n = 422; 180 English major and 242 non-English major students) to deal with four research objectives. Study 2 used focus groups (n = 36; 18 English major students and 18 non-English major students) to supplement the findings of Study 1 and to deal with the last research objective. Ngo found that a few of the English major and non-English major students were incapable of appreciating the significance of learning English. More English major students were inherently motivated than non-English major students. The current study similarly uses a mixed methods study and compares two groups of students, though the composition of both are different, as is the focus.

Katz, Kaplan, and Gueta (2009) used SDT to study primary and junior high school students' needs, teachers' help and motivation for completing homework. In particular, they researched teachers' role in supporting students' psychological needs in their motivation for completing homework. The sample consisted of 71 fourth-grade students (27 boys, 44 girls) from two primary schools and 108 eighth-grade students (44 boys, 64 girls) from one junior high school. All the schools were situated in a middle-class population in southern Israel. The researchers found that teacher support moderately contributed to the differences in autonomous motivation for homework. This study is focussed on teachers support for completing homework, which the current study is focussed on teachers support for the whole in the teaching-learning process; nevertheless, homework might be a school-related factor which impacts in students' motivation and engagement in learning.

Chirkov, Ryan, Kim, and Kaplan (2003) conducted a cross-cultural study with 559 people from South Korea, Russia, Turkey, and the US. They found that, in different cultures, the impact of autonomy is understood in the same way via different practices and autonomy is linked to well-being. Even though some scholars describe direct autonomy as a

characteristic of personal behaviours or a matter related to well-being in only Western cultures, the researchers found that it is a fundamental concept for all people.

Reviewing all the above studies, it can be concluded that, even though SDT perspective has been used in the Asian context, research is particularly sparse in the South Asian context. The current study adds to the knowledge base for SDT, particularly for Sri Lankan context. The findings of this study might be generalisable to the South Asian context because the reasons for dropping out are similar in other countries. Significantly, most of the studies above were primarily focused on middle school students' in general, not on students from low socio-economic areas. The studies also did not directly examine school-related conditions impacting student's motivation and engagement in learning, or ways to increase early adolescents' motivation and engagement in learning and the strategies for promote the use of SDT. All these factors make up the current study.

## **2.9 How to increase motivation and engagement of students using SDT**

In this section, some of the possible motivational strategies that could be undertaken with the aim of increasing motivation and engagement in learning through an SDT perspective will be discussed. Since the current study also examined motivational strategies undertaken by the schools (see research question seven: What motivational strategies have been taken by the schools to increase students' motivation and engagement in learning in low socio-economic schools in Sri Lanka?), it is useful to examine the related literature.

Ryan (2009) believes that the fulfilment of needs linked with SDT is relevant to all cultures and developmental stages. More than 200 experimental education research projects have been conducted through the lens of SDT. The majority have stressed background and individual factors that assist optimal learning, engagement, and well-being.

### **2.9.1 Strategies for increasing autonomy**

Kusurkar et al. (2011) stated that to increase autonomy, teachers should identify students' desires, understand students' expectations of a lesson, and plan the lesson to fulfil those

needs. Planning a lesson according to students' needs supports self-determined motivation in students. Teachers should also incorporate an autonomous motivation element in their teaching to direct the learning behaviour of the students and offer the students encouragement. Teachers should patiently pay attention to students and, if they indicate a lack of interest in the instruction, should explain the importance of the topic or method to them. If teachers do not take note of lack of interest by students, students' concentration tends to decrease in future lessons. Encouraging lively student participation throughout the learning process is important because it encourages learning to be more independent. It is a simple matter for teachers to make comments in class conversations; doing so enhances a sense of relatedness between students and teacher. Giving pre-arranged direction to students throughout the teaching-learning process is also important, as is assigning responsibility to students for increasing their autonomy in learning.

Ryan and Deci (2000) postulated that by promoting choice, autonomy is satisfied. Further, Deci and Ryan (1985) found that self-determination involved choice and was a key component in intrinsically motivated behaviour as well as some types of extrinsic behaviour. Urdan and Schoenfelder (2006) found that autonomy supportive teachers provided students with choices concerning how to complete work and what to work on. Anderman and Leake (2005) stated that although teachers could not give free reign to their students, providing choices in activities and assignments would frequently increase students' sense of autonomy. Deci, Eghrari, Patrick, and Leone (1994) advised that when providing choice was not possible for certain activities, explaining the reason for the lack of choice reduced the negative effects on autonomy. When students engage in planning their intrinsic motivation improves because they may feel they are collaborating in the teaching-learning process (Kusurkar et al., 2011).

Oginsky (2003) found that giving students a choice in their assignments improved intrinsic levels of motivation in middle school students. Suarez (2007) implemented a tiered instructional programme and, because of this programme, middle school mathematics student motivation and performance increased. Students were able to choose which level of assignments they wanted to complete. Suarez labelled the levels green, blue, and black. The green choice was set at a level that exhibited proficiency, and the blue and black

represented levels above proficiency. The combination of choosing tasks at their skill level and being able to make decisions in relation to their learning increased the students' responsibility for their learning.

Urdu and Schoenfelder (2006) noted that autonomy supportive teachers provide students with descriptive feedback rather than just a grade. Through this, students were able to identify areas that needed improvement and they were encouraged to work towards achieving this. The authors also explained that autonomy supportive teachers provide students time to work through problems and they do not provide too much assistance. Reeve and Jang (2006) suggest teachers can use praise for improvement, encourage effort, offer hints to students to make progress, and be responsive to students' perspectives to increase students' perceptions of autonomy. They noted that not giving students' time to try to solve problems before providing them the answers stifled autonomy.

Non-controlling, flexible language also supports autonomy. Deci et al. (1994) believe that autonomy supportive teachers do not use force to motivate behaviour. Reeve, Deci and Ryan (2004) found in their study that students' levels of engagement could be increased by using non-controlling language, as measured by active task involvement and attempts to take responsibility for their learning.

Moreover Deci et al. (1994) and Ryan and Deci (2000a) highlighted that teachers who empathised with their students supported their autonomy and improved their motivation. Urdu and Schoenfelder (2006) found controlling teachers used controlling language. They also found these teachers used threats as a means of controlling student behaviour. Examples of controlling language are phrases such as 'should', 'have to', 'ought', 'need to', and 'must'. Reeve and Jang (2006) agreed that controlling language, such as commands, decreases autonomy in students. Similarly, Vansteenkiste, Lens and Deci (2006) identified guilt-inducing language as controlling because it creates internal pressure. Rather, Kusurkar et al. (2011) suggested, giving feedback and suggestions in the correct way provides students with the opportunity to decide for themselves, which is a successful way of increasing their intrinsic motivation.

Ames (1992) concluded that giving students' responsibility allows them to make decisions concerning their learning and provides opportunities for them to become independent learners who take responsibility. According to Sagor (2003), one example of involving students in classroom decision-making is to determine classroom rules collectively. In this case, the teacher would share certain expectations that were not negotiable, explaining the reasoning behind them, and then the students would discuss and agree on additional classroom expectations. Teaching students about goal-setting strategies assists them in making decisions and taking responsibility. Teaching effective goal-setting consists of helping students to set attainable goals, helping them to develop plans to reach the goals, and showing them how to monitor their progress towards achieving the goals (Sagor, 2003).

Wlodkowski (1999a) affirmed that students felt more in control over their learning when they set personal goals. Further Zimmerman and Kitsantas (2005) stated that self-monitoring and self-assessments provided opportunities for students to track their progress. According to Sagor (2003), self-reflection should focus on both the final product and students' learning throughout the process.

Other than encouraging students' responsibility for learning, autonomy supportive teachers listen to their students. These teachers encourage students to share their opinions because, eventually, it is the students' responsibility to learn. Urdan and Schoenfelder (2006) noted that autonomy supportive teachers promote student input and show care for their students. Further Legault, Pelletier, and Green-Demers (2006) indicated that students' autonomy could be increased by providing opportunities for students to show initiative, as well as seeking and respecting their opinions. Helping students to take accountability for their learning does not mean that teachers are totally removed from the process. This sentiment is supported by Legault et al. (2006) who contended that supporting autonomy requires teachers to give structure and direction but allow students to take responsibility. Moreover, if the pressures, including evaluative pressure, are reduced in the classroom, students' autonomy could be enhanced. Increasing students' feelings of having a say and having a selection of tasks can increase their autonomy (Niemic, Ryan, & Deci, 2009).

## **2.9.2 Strategies for increasing competence**

According to Ryan and Deci (2002), competence is more than the achievement. They explained that confidence represents a sense of competence, which is important for teachers to integrate strategies in their classrooms that enable competence.

Self-determination theorists state that support for competence consists of finding optimal challenges (Deci et al., 1991; Ryan & Deci, 2000a; Urdan & Schoenfelder, 2006). Deci and Ryan (1985) emphasised that an optimal challenge is an activity that is challenging enough to inspire natural curiosity towards exploration. Anderman and Leake (2005) suggested teachers should teach students how to break the tasks into small sections. When students complete the sections, they can see their progress and their confidence increases with each step. Teachers need to show how to work through challenging and difficult tasks rather than emphasising the ideal completion of tasks (Anderman & Leake, 2005). Further providing optimal challenges is a key factor for reaching integrated internalisation (Deci & Ryan, 1985).

Niemiec and Ryan (2009) state that when teachers introduce appropriately demanding learning tasks, students' competence can be increased because those tasks allow students to check and develop their educational skills. As found by Deci et al. (1991), Legault et al. (2006), and Ryan and Deci (2000), positive, constructive performance feedback increases students' feelings of competence. Deci and Ryan (2000) emphasised that positive feedback aids in satisfying competency needs, but students must feel that they are responsible for their competence.

Anderman and Leake (2005) point out that teachers use a number of assessments so that students have different ways to display their understanding of the concepts. Performance-based assessments and portfolios are two examples of forms of assessments. Brualdi (1998) explained that performance-based assessments provide teachers with information about students' knowledge of concepts and their abilities to apply this knowledge. Sagor (2003) stressed that the use of portfolios, which is a collection of a student's work, supports competence because it provides the teacher and student with evidence of development.

Ames (1992) believes that student evaluations should be private and what should be communicated is that mistakes are a part of learning. Also important is that positive, constructive performance feedback encourages internalisation of regulation (Deci & Ryan, 1985; Elliot, Faler, & McGregor, 2000).

Niemiec and Ryan (2009) also advise that teachers should offer suitable methods and comments to encourage achievement and thoughts of efficacy. Students will only connect and individually value activities they can truly comprehend and be proficient in. Hence, it is essential that comments emphasise evaluation and encourage students to explore their environment.

Ryan and Deci (2000) point out that to sustain a large amount of perceived competence, students will look for challenges that are related to their abilities. Painter (2011) stated that learning activities that are simple and do not test the student's proficiency or are very hard and are beyond the student's proficiency level will not inspire or encourage students. Providing students with activities with a suitable level of complexity is critical to increasing their perceived competence. Making the activities too simple or too tough can undermine students' motivation and competence.

Hui and Tsang (2012) emphasised that teachers should think, integrate and prioritise students' viewpoints in learning tasks and thoughts, and believe that they are competent of independent self-regulation and having individual aims. They suggested that teachers should initiate activities that will deal with students' competence.

In summary competence and autonomy are necessary parts for people's need for challenges. They are also useful for increasing students' abilities. When these needs are fulfilled, students' intrinsic motivation is increased, and if they are not satisfied their intrinsic motivation is decreased (Ryan & Deci, 2017).

### **2.9.3 Strategies for increasing relatedness**

In this section, research findings related to strategies for increasing relatedness is discussed. Ryan and Deci (2000a) revealed that researchers found a correlation between feelings of relatedness and increased intrinsic motivation. Nelson and DeBacker (2008)

conducted a study on middle school students and found that class belongingness impacted students' motivation to learn. Similarly, Anderman (2003) and Davis (2006) found there is a mutual relationship between students' sense of belonging and academic motivation. Further, they found that academic motivation influenced the excellence of student-teacher relationships and that relationship predicted student motivation. According to the literature, some strategies have been found to support relatedness. These will be discussed next.

Ryan and Deci (2000) noted that teachers increased a sense of relatedness in their classrooms by respecting and caring for students. In an environment of mutual respect, students feel relaxed in contributing their ideas (Anderman & Leake, 2005). Anderman and Leake (2005) also indicated that there should be respectful classrooms to provide equal opportunities for students. Similarly, Sagor (2003) stated that, in respectful classrooms, teachers plan lessons that give opportunities for students with varied learning styles, intelligence and cultural differences. Teachers also create an atmosphere of mutual respect by preventing students from making fun of others, encouraging students to value the contributions of others, and requiring students to be considerate of the feelings of others (Patrick et al., 2007).

Hui and Tsang (2012) propose that tolerance and confidence are essential in letting students study in their own personal way. This means that teachers need to pay attention to students' viewpoints, to support them when they are confused, support students' originality, and offer opportunities for self-studying. Skinner and Belmont (1993) found that students' viewpoints of their teachers' contribution predicted their successful engagement in classroom activities. When students perceive that teachers are caring and friendly, they experience more passionate attitudes in the classroom. In addition, according to Niemiec and Ryan (2009), in the classroom, relatedness is closely linked with a student's sense that the teacher authentically likes, admires and values him or her. Students who show that kind of relatedness tend to show integrated regulation for the difficult activities involved in learning. By contrast, students who experiences are disregarded by teachers tend to move away from personalisation.

By providing opportunities for students to work together, their sense of relatedness increases (Legault et al., 2006). Incorporating activities that provide opportunities to work with peers, such as cooperative learning will increase students' sense of belonging (Anderman & Leake, 2005). Schunk, Pintrich, and Meece (2008) combined the variety of formats of cooperative learning into two main groups: task specialisation, in which each member takes responsibility for one part of the task; and group study, in which the members of a group cooperatively work together towards a common goal. Similarly, Wlodkowski (1999b) explained that collaborative learning is a strategy that creates an environment that encourages connections to and respect for others. Furthermore, when students feel that they are linked and valued by teachers and classmates in a learning setting, their relatedness is fulfilled (Hui & Tsang, 2012).

Students need to understand the relevance or value of activities in order to internalise their regulation in learning. Ryan and Deci (2000a) explain that the relevance or value of an extrinsically motivated activity is an important factor affecting the internalisation of the regulation of the behaviour. The relevance or the connection of personal meaning to an activity increases motivation even when the activity is not interesting (Vansteenkiste et al., 2006). If a task is repetitive, boring, and is felt to be unimportant, amotivation results (Legault et al., 2006). Thus, as Ames (1992) stated, in order to increase the internalisation process, the task design should highlight the meaning or relevance of the activity. Teachers can create personal meaning of activities by understanding students' interests.

Wlodkowski (1999a) recommended that in addition to personal interest, teachers should create situational interest by using environmental conditions such as surprise, novelty, computers, role-playing and simulation, various forms of media, and uncertainty. He also emphasised that task relevance and personal meaning could be increased using real-life problems. In other words, he advocates for problem-based learning and authentic learning. Problem-based learning provides opportunities for students to work on issues relevant to them (Harada & Kim, 2003). Simulated problems are also successful in helping students discern personal meaning (Johnson, 2004). According to Reeve et al. (2004), identifying and communicating task relevance and significance increases high school student

engagement. Further, the significance of the task or task value is significant in the internalisation of regulation of the behaviour (Deci & Ryan, 2000).

In summary the relationships between the three basic psychological needs are complex. Lavigne, Vallerand, and Miquelon (2007) found that supports for autonomy improve not only the students' perceptions of autonomy but also their perceptions of competence. They also found that allowing students to make decisions and providing them with choices relating to their education may develop their competence to make decisions about their learning. Teaching experiences carry students' fulfilment of three basic psychological needs and are connected with larger intrinsic motivation as well as autonomous types of extrinsic motivation (Niemic & Ryan, 2009).

The literature review strongly supports the proposition that to increase students' autonomy, competence and relatedness increases their self-determination to learn. Such strategies are useful for identifying to apply in Sri Lankan low socio-economic school context early adolescents to increase their motivation and engagement in learning also.

## **2.10 Directions from the literature survey**

A review of the literature found no specific research on the application of SDT to the educational context in Sri Lanka, indicating that data collected in this study would fill a gap. Although students' motivation and engagement for learning have been examined and various strategies to increase such have been studied around the world, there is little evidence they have been applied in Sri Lanka.

Overall the following directions emerged from the literature review:

- Research should be conducted to apply SDT to the Sri Lankan education context and examine whether the design of teaching practices using the SDT framework/principles could increase students' motivation and engagement for learning and increase their retention in schools.
- Research should be conducted employing students from low socio-economic areas to examine their motivation and engagement for learning.

- Research should be conducted to recognise the school-related conditions impacting early adolescent motivation and engagement in learning to prevent disengagement with their studies.
- Research should be conducted to examine ways to increase early adolescents' motivation and engagement in learning and the strategies taken by the schools to promote the use of SDT.
- Mixed methods studies provide a useful methodology in relation to students' motivation and engagement in learning.
- Undertaking the current study would provide useful information, particularly for Sri Lanka but perhaps also for the wider South Asian context.

## **2.11 Conceptual framework**

As discussed in Chapter 1, Sri Lankan low socio-economic early adolescents' participation in learning is low (e.g., Athurupane, 2009; Jayaweera & Gunawardena, 2013; Little et al., 2011; Liyanage, 2013; Perera, 2006, 2011; Raju, 2016). Their low motivation and engagement in learning, which is related to school-related conditions might be one of the major reasons for the low participation rate; but the actual reasons have not been explicitly examined. This study seeks to discover whether students from low socio-economic backgrounds have low motivation and engagement in learning and whether the school context plays a causal factor.

In this study, the MES-JS scale will be employed to identify the least motivated and engaged students (male and female) in selected low socio-economic districts in Sri Lanka. Those students will then be interviewed to identify the school-related conditions impacting their lower motivation and engagement in learning. As discussed in section 2.9, there are common, world-wide school-related conditions impacting early adolescents' motivation and engagement in learning. Through the responses in interviews with students, teachers and principals, it is anticipated that this research will reveal the impact school-related conditions have on motivation and engagement in learning in the Sri Lankan context. The research will also investigate the motivational strategies used by the teachers and principals.

Another part of the study will examine school-related conditions and motivational strategies through a SDT perspective and determine whether students' intrinsic motivation are fulfilled in the school context. As noted by Vansteenkiste et al. (2004), increasing intrinsic motivation is an important strategy for junior secondary students for their successful learning. By changing the school social context, it may be possible to increase intrinsic motivation. The current study examines teachers' and principals' strategies to motivate and engage students in learning. SDT (Ryan & Deci, 2000a) provides an incorporated structure to realise how motivation could be increased by satisfying the basic psychological needs within a flexible teaching-learning environment.

Many countries have used SDT in relation to the school social context. As discussed in section 2.8.2, there has been a lack of research conducted in the South Asian context from a SDT perspective. And, as detailed in section 2.9, students' self-determination could be increased by employing different strategies. The conceptual framework of this study is constructed on the basis that by fulfilling early adolescents' basic psychological needs (autonomy, competence and relatedness) in the school context, their intrinsic motivation and thus self-determination in learning is increased. This will then lead to improved participation in learning (high achievement levels, no absenteeism and no early dropouts) of early adolescents from low socio-economic backgrounds. The results from this study are expected to provide a model for Sri Lankan modifying the context of schools providing education for low socio-economic status early adolescents by increasing their motivated and engagement in learning.

## **2.12 Discussion and summary**

At the beginning of this chapter the main theoretical concepts of the current study, motivation and engagement, were examined. Intrinsic motivation, extrinsic motivation and amotivation were identified as categories of the concept of motivation. Intrinsic motivation was further identified as directly related to the current.

The North American model of engagement and the European approach to engagement were then examined. The North American model of engagement was preferred for this study. The link between motivation and engagement was discussed and it was found that

there is a positive correlation between those concepts and the theoretical background of this study, namely, SDT, was examined. The theoretical backgrounds to the MES-JS (Martin, 2014) and other relevant information were also examined.

Studies utilising MES were examined and found to have predominantly utilised quantitative methods. There is scope to enhance findings by utilising qualitative research.

The review then examined the literature on motivation and engagement studies conducted in low socio-economic status were examined, then examined school-related conditions impacting students' motivation and engagement, namely, school transitions, student-teacher relatedness, peer relationships, academic achievement, curriculum, and psychological stressors. The applications of SDT among selected non-Asian and Asian countries were discussed, noting there is a lack of studies undertaken in the South Asian context. It appears that there has been no study conducted in the Sri Lankan context in relation to both motivation and engagement or from a SDT perspective.

The practicality of applying SDT was considered. Increasing motivation and engagement in learning employing SDT was also examined. The review indicates that interventions using an SDT perspective could increase students' motivation and engagement in learning. The current study seeks to research the relevance of such findings for the South Asian context, particularly Sri Lankan context.

The objectives of this study, therefore, are to build upon the findings of the literature review and examine the motivation and engagement levels, the school-related conditions impacting them, and motivational strategies employed in low socio-economic context schools in Sri Lanka. To achieve the objectives, a number of research methods were employed, as discussed in Chapter 3.

## **CHAPTER 3: RESEARCH METHODOLOGY**

### **3.1 Introduction**

This chapter explains the methodology employed for collecting and analysing data in this study. It starts with a discussion of the research questions and the different research paradigms commonly used in education research, particularly focusing on the paradigm that underpins this research. This is followed by an explanation of the research methods used in the study: surveys and semi-structured interviews. The research employs a mixed methods approach. The components of the study explained in this chapter are: participants and sampling, the data collection process, data analysis, establishing the validity and trustworthiness of the study, ethical considerations, and the methodological limitations of the research.

### **3.2 Research objectives and questions**

Research questions define the primary goals of the research and reveal the main aspects and ideas which are to be explored and/or explicated (Walter, 2013). As Natalier (2013) explained, a study is focused by the research questions; they form all the parts of the project, put limits on a project, give it consistency and direction, and keep the researcher focused. According to Maxwell (2005), research questions are the one part that directly relates to all other aspects of the design of the research and they have an impact on and are responsive to all other parts of the study.

The overarching question framing this study is:

**Is there a relationship between the motivation and engagement levels and school-related conditions impacting junior secondary schools in low socio-economic districts in Sri Lanka?**

The question is framed more specifically by the following objectives and research questions.

## **Research objectives**

The specific objectives of the research were to:

1. Develop validated scales that would allow the measurement of student engagement and motivation in a Sri Lankan school context.
2. Examine whether motivation and engagement in learning are related to different variables associated with student characteristics and demographics.
3. Explore students', teachers' and principals' experiences of teaching and learning to understand how these influence students' motivation and engagement in learning.
4. Develop potential strategies that positively address issues of low motivation and lack of engagement in learning in Sri Lankan junior secondary schools.

## **Research questions**

1. How can student engagement and motivation be measured for junior secondary students in low socio-economic schools in Sri Lanka?
2. What are the levels of motivation and engagement in learning amongst junior secondary students in low socio-economic districts in Sri Lanka?
3. Do levels of motivation and engagement in learning vary with gender for junior secondary students in low socio-economic schools in Sri Lanka?
4. Do levels of motivation and engagement in learning vary with ethnicity for junior secondary students in low socio-economic schools in Sri Lanka?
5. What differences exist between schools in the levels of motivation and engagement in learning for junior secondary students in low socio-economic schools in Sri Lanka?
6. What school-related conditions impact upon junior secondary students' motivation and engagement in learning in low socio-economic schools in Sri Lanka?
7. What motivational strategies have been taken by the schools to increase students' motivation and engagement in learning in low socio-economic schools in Sri Lanka?

### 3.3 Research paradigm

This research project will employ a mixed-methods methodology and will, thus, involve the collection of qualitative and quantitative data. Justification for merging qualitative and quantitative data dates back to the “paradigms wars” of the 1970s and 1980s, when social scientists assisting qualitative research proposed constructivism as an optional paradigm to the positivist paradigm of quantitative research (Reichhardt & Rallis, 1994). As Bazeley (2004) discussed, the different rationales employed for classifying “qualitative” and “quantitative” have connected to diverse paradigmatic perspectives.

Hall (2013) identified four commonly agreed categories of research paradigms: post-positivism, constructivism and pragmatism. He explained that positivism and post-positivism are directly connected with quantitative research, and constructivism is directly connected with qualitative or interpretivist research. Maxwell and Mittapalli (2010) pointed out that methodological pragmatists argue that paradigmatic conflicts can be resolved on the basis of practical utility; pragmatism has been promoted as the appropriate philosophical perspective for mixed methods studies (Johnson & Gray, 2010; Maxcy, 2003; Tashakkori & Teddlie, 2003b).

However, Hall (2013) and Maxwell and Mittapalli (2010) argued that the pragmatist position undervalues the real impact of philosophical assumptions on research methods, an impact that is mainly important for merging both approaches, qualitative and quantitative. According to Mark, Henry, and Julnes (2000) ontological, epistemological and axiological assumptions are real properties or “values” of researchers and necessarily affect researchers’ methods at some level. Maxwell and Mittapalli (2010) explained that these assumptions are lenses for viewing the world and help to reveal phenomena and generate insights that would be difficult to obtain with other lenses.

The view adopted in this research study agrees in principle with the pragmatist position, that research methods are not necessarily linked to a single philosophical stance and may be informed by one or more paradigms (Greene, 2002). As Symonds and Gorard (2010) highlighted, mixed methods indicate an approach in social science which promotes the combination of quantitative and qualitative methodological approaches. In addition,

mixed methods research does not replace quantitative or qualitative approaches but reinforces the strengths and minimises the limitations of both approaches in a single research study (Johnson & Onwuegbuzie, 2004). These authors stated that if someone visualises a range with qualitative research at one end and quantitative research at the other end, mixed methods research would cover the large middle region. Onwuegbuzie and Leech (2004a) believed that mixed methods research can also assist in overcoming the division between quantitative and qualitative research, thereby forming a third research paradigm. Johnson & Onwuegbuzie (2004) stated:

[P]ragmatism rejects traditional dualisms (e.g., rationalism vs. empiricism, realism vs. antirealism, free will vs. determinism, platonic appearance vs. reality, facts vs. values, and subjectivism vs. objectivism) and generally prefers more moderate and commonsense versions of philosophical dualisms based on how well they work in solving problems. (p. 18)

When considered philosophically, pragmatism is the third research group, and it moves past the paradigm wars contributing a rational and realistic option (Johnson & Onwuegbuzie, 2004). Pragmatism also assists in how research approaches can be effectively combined (Hoshmand, 2003). It gives, philosophically and methodologically, an instant and helpful middle position. Furthermore, it provides a technique for choosing methodological mixes which assist researchers to respond in a better way to numerous research questions (Johnson & Onwuegbuzie, 2004). As Morgan (2007) explains, the approach stressed in qualitative research is an inductive-subjective-contextual approach, while quantitative research stresses the approach of deductive-objective-generalisation.

As noted by Sechrest and Sidana (1995), expansion in the mixed methods (pragmatist) approach has the possibility of decreasing some of the issues linked with any particular method. Further, Johnson and Onwuegbuzie (2004) emphasised that by employing quantitative and qualitative methods in the same design, mixed methods research is able to integrate the strength of both approaches. Moreover, the mixed method approach examines related but diverse sides of an incident, resulting in an enhanced consideration of that incident (Greene, 2008; Tashakkori & Teddlie, 1998).

Like all current philosophies, pragmatism also has some shortcomings (Johnson & Onwuegbuzie, 2004), including the tendency for basic research to receive less attention than applied research, since applied research might seem to create more direct and realistic outcomes. Furthermore, pragmatism might encourage incremental modification rather than more primary, structural or radical modification in society and, although pragmatism has worked moderately well, many current philosophers still reject pragmatism because of its rational weakening as a resolution to numerous philosophical arguments. Pragmatic researchers may also occasionally be unsuccessful in giving a reasonable response to the query “For who is a pragmatic resolution helpful?” (Mertens, 2003). Further Hall (2013) and Maxwell and Mittapalli (2010) emphasised that the pragmatist position undervalues the real impact of philosophical assumptions in relation to research methods, an impact that is mostly important for joining both approaches.

There are also numerous realistic problems that influence mixed methods research. Most notably, employing various methods enlarges the amount of time essential to complete a study and the cost of carrying out the study. A more significant realistic issue is linked to the level of abilities of the researcher and existing knowledge. High-quality mixed methods research needs a considerable operational awareness of the variety of methods being employed, researchers’ assumptions, analysis methods and tools, and a skill to comprehend and explain findings resulting from the diverse methods (Patton, 1988; Reichardt & Cook, 1979). Similarly, the degree of understanding of the audience can be a problem; the mixed methods researcher requires methods which might be unknown to readers (Creswell, 1994).

However the majority of researchers agree that all research methods have intrinsic restrictions. Therefore, by methodically mixing alternative methods in a certain study, a researcher is able to compensate for uni-paradigmatic limits (Anchin, 2008; Gelo, Braakmann, & Benetka, 2008; Lonner, 2009). In fact, Johnson and Onwuegbuzie (2004) argued that it was time methodologists caught up with practising researchers; by lessening the divide between quantitative and qualitative researchers, mixed method research has a huge opportunity to encourage a collective accountability for achieving responsibility for learning excellence.

Morgan (2007) emphasised that the immense power of the pragmatic approach of research methodology in social science is its emphasis on the link between epistemological concerns about the status of knowledge and scientific concerns about the methods used to generate that knowledge. Furthermore, Feilzer (2010) emphasised that pragmatism is focussed in the direction of resolving realistic issues in the “real world” more than on assumptions about the status of knowledge.

### **3.4 Research methods**

In this study, both qualitative and quantitative research methods were employed. Gay, Mills, and Airasian (2012) explain that quantitative research is the collection and analysis of statistical data to articulate, explicate, forecast or direct a situation of interest, and qualitative research is the collection, analysis and interpretation of a broad narrative and visual data to gain access to an exacting situation of interest. For this research, the quantitative research method employed initially was the survey MES-JS (Martin, 2014) (see Appendix G for all three medium MES-JS) and the qualitative research method employed was the semi structured interview.

#### **3.4.1 Surveys**

Walter (2013) explained that survey research is a collection and analysis of participants’ responses to the similar set of prearranged questions. Cohen, Manion, and Morrison (2011) explained that surveys collect data at a specific point in time with the purpose of explaining the status of current situations, or recognising principles in opposition to which current situations could be compared, or deciding the relationships that are present among particular incidents.

There are many advantages to having surveys in a research project. As argued by McIntyre (1999), surveys are capable of gaining information from large samples of the population. Walter (2013) identified five advantages to conducting surveys:

[V]ersatility (surveys can be used to investigate a wide range of issues and collect information on people’s demographic background, attitudes, values, beliefs, perceptions and opinions), efficiency (surveys are able to collect data

and information from a large sample in a short period of time), for a large population (a survey could also provide reliable and valid information about a large group of people from a relatively small sample), suitable for statistical analysis (relationships between variables in the data could be identified using various statistical analysis techniques), and facilitate secondary data analysis (data generated by a survey could also be analysed by researchers other than the original person who carried out the survey, referred to as secondary data analysis). (pp. 122–123)

But surveys also have some limitations. Pinsonneault and Kraemer (1993) stated that surveys are usually inappropriate wherever a consideration of the historical background of phenomena is needed. Further, a survey is no stronger than its weakest point. Surveys may produce issues due to poor sampling, poor question design and phrasing, and wrong or prejudiced and low or non-responses (Cohen et al., 2011). Walter (2013) noted that survey data also has a number of limitations, including being a point-in-time snapshot, are self-reported and, while able to identify relationships, do not explain causality – and some surveys are expensive. In this study, 220 participants were surveyed for the quantitative phase of the research. For the follow up qualitative phase, 24 students, 12 teachers and 12 principals were interviewed.

As noted earlier, in the survey part of this research, the MES-JS (Martin, 2014) instrument was employed. Martin (2014a) explained that the psychometric properties of MES-JS (Martin, 2014) are based on data gathered from 1,249 students among 63 classes from 15 junior schools. Participants were aged (a) 9 years to 11 years 6 months (47%) and (b) 11 years 7 months to 13 years (53%). The mean age of students was 10.86 (SD = .75) years. Students were from Year 5 (46%) and Year 6 (54%). In total, 54% of students were males and 46% females. First order confirmatory factor analysis (CFA) employing LISREL 8.80 yielded an excellent fit to the data ( $\chi^2=2724.92$ ,  $df = 847$ ,  $CFI = .98$ ,  $RMSEA = .04$ ), as did the higher order CFA ( $\chi^2= 3197.18$ ,  $df = 886$ ,  $CFI = .98$ ,  $RMSEA = .046$ ). The mean of the Cronbach's  $\alpha$  for the 11 sub-scales is .78.

In relation to obtaining permission to use the scale, the MES-JS (Martin, 2014 – 2014-2015 14<sup>th</sup> edition) was purchased for this research study in 2015, along with the Motivation

and Engagement scale work book-testing and administration guidelines, test user manual, and motivation and engagement materials-summary document. With the purchase, a one-year license to use the Motivation and Engagement scale pack, research student version was granted (see Appendix H).

### **3.4.2 Semi-structured interviews**

Interviews are a commonly used technique to evaluate an individual's experiences and their internal attitudes, opinions and perceptions (Zhang & Wildemuth, 2009). Interviews are able to be divided into three main types: structured, semi-structured, and unstructured (Zhang & Wildemuth, 2009). A structured (or standardised) interview is an interview in which all interviewees are asked similar questions using similar words and in the same order (e.g., oral survey). A semi-structured interview has a prepared list of questions to guide the interview and obtain comparable and similar information, but the approach offers the flexibility to include other information depending on the participant's responses. An unstructured (or non-directed) interview is more like an informal conversation, where questions emerge from the context of the interview (Zhang & Wildemuth, 2009). The semi-structured interview, as noted previously, was the chosen data collection approach used in the qualitative component for the current study. To maintain the consistency, all the semi-structured interviews were conducted by the researcher.

There are some drawbacks to the interview method of data collection. Kumar (2011) notes that interviewing takes more time and is often costly. In addition, the excellence of data relies on the excellence of the communication and the interviewer; interviewer prejudice might also be an issue.

In this research, students, teachers and principals were asked questions relating to the school-related conditions impacting early adolescents' motivation and engagement. As per the nature of this study, the semi-structured interview method was considered the most suitable interview technique. Using this method, the researcher was able to record a considerable amount of views of respondents with regard to the problem of the research.

The procedures taken in conducting the interviews will be discussed in section 3.8.2.2 (Data collection procedures in the qualitative phase). In the next section, the research design of this research is discussed.

### **3.5 Research design**

This study employs the sequential explanatory mixed methods design, which consists of the collection and analysis of quantitative data accompanied by qualitative data (Creswell, 2005). The objective of this design is to employ qualitative results to support the interpretation and description of the findings of principally quantitative research (Creswell, Plano Clark, Gutmann, & Hanson, 2003). This design is useful for the current study, as sequencing the qualitative element after the quantitative element could offer extra information to improve and fully comprehend the quantitative findings, particularly when those findings are unpredicted (Creswell, 2005; Teddlie & Tashakkori, 2009). The quantitative component attempts to address this study's first five research questions, while the qualitative element tries to clarify and offer a comprehensive approach relating to school-related conditions and motivational strategies taken by the schools (the last two research questions).

The quantitative component of the present study includes the administration of the MES-JS (Martin, 2014) scale to study participants. The qualitative component consists of semi-structured interviews with student participants exhibiting low levels of motivation and engagement as identified from the MES-JS MQ scores. Principals of all the selected schools were also interviewed, along with a sample of 12 teachers. The interviews were conducted to obtain an understanding of school-related conditions impacting motivation and engagement in learning and any motivational strategies employed by the schools. The interviews were conducted in each school on the day following the quantitative study. In the next section, the research approach, the mixed methods approach employed in this research will be discussed.

## **3.6 Mixed methods approach**

As stated by Johnson and Onwuegbuzie (2004), mixed methods research is legitimately defined as the division of research in which the researcher mixes up or merges both quantitative and qualitative research procedures, techniques, perspectives, ideas and language into one study. Mixed methods research is an extensive and inventive type of research, not a restrictive type of research. It is comprehensive, pluralistic and interrelated, and it proposes that researchers obtain a broad approach for selecting methods (Johnson & Onwuegbuzie, 2004); through mixed research, various research questions and mixtures of questions are answered most thoroughly and completely.

Tashakkori and Teddlie (2003) emphasised that mixed method research studies employ data collection and analysis procedures in parallel or in sequential stages. Furthermore Gay et al. (2012) explained that mixed methods research builds on the robustness of both research methods to allow researchers to fully understand a condition in one study. Given the research questions that frame this study, it was considered appropriate to use both qualitative and quantitative methods for collecting data. According to Wiersma and Jurs (2009), educational outcomes are multifaceted and often impacted by a variety of factors. Volet (2001) points out that the worth of merging quantitative and qualitative, deductive and inductive procedures of analysis is not restricted to the investigation of motivation for learning settings. Anderman and Anderman (2000) emphasised that this merging of methods is an increasing trend in studies in educational psychology.

Since the researcher wanted to have a more complete understanding about the students' motivation and engagement in learning in Sri Lanka, the mixed methods approach was deemed the most suitable one for this research. The mixed methods research design and the variant of the explanatory design selected for this study will now be examined.

### **3.6.1 Explanatory sequential mixed methods research design**

Tashakkori and Teddlie (2003) described six major mixed methods designs: sequential explanatory design, sequential exploratory design, sequential transformative design, concurrent triangulation design, concurrent nested design and concurrent transformative design. Creswell and Plano Clark (2007, 2011) explain that there are four fundamental

mixed methods designs: convergent parallel design, the explanatory sequential design, the exploratory sequential design and the embedded design. In addition, they discussed two further designs: transformative design and the multiphase design.

The sequential explanatory mixed methods design was employed in this study. As described by Tashakkori and Teddlie (2003), the sequential explanatory design is the most simple mixed methods design. Punch (2009) explained that a sequential explanatory design is a two-stage design and used wherever the researcher uses qualitative data to describe or to build on the original quantitative outcomes. In this study, the first stage was the collection and analysis of quantitative data followed by qualitative data collection and analysis.

Creswell and Plano Clark (2007, 2011) also explained that there are two variants to the explanatory design: the follow-up explanation model and the participant selection model. Even though both models have a first quantitative phase accompanied by a qualitative phase, they vary in the link between the two phases. The follow-up explanation model focuses on results that are examined deeply, and the participant selection model focuses on the suitability of participants chosen.

For this study, both variants were employed. Creswell and Plano Clark (2007) notes that when a researcher requires quantitative results to recognise and choose participants for a follow-up qualitative research, the participant selection variant is to be employed. In this study, those students with the lowest motivation and engagement scores, as identified by their MES-JS MQ scores, were chosen (two from each school) from each school to participate in interviews in the second phase of the study. The interviews were conducted to understand school-related conditions impacting upon students' motivation and engagement in learning.

In the follow-up explanation model, the researcher recognises particular quantitative results which require extra clarification, for example, statistical differences among groups, significant results, strong predictors, participants who scored at excessive levels, or unpredicted results (Creswell & Plano Clark, 2007). Though, this study found significant results in the quantitative phase, the results could not be generalised to the whole study

population. Therefore, it was decided to employ the findings related to least motivated and engaged students for the follow-up explanation. In the next section, participants and sampling, and the data collection process undertaken in this research will be considered.

## **3.7 Participants and sampling**

This section discusses the target population, sampling methods, and the quantitative and qualitative data collected.

### **3.7.1 Target population**

Best and Khan (2006) defined a population as a set of persons with a minimum of one general feature which differentiates that group from other persons. All provincial departments of education statistics, including those for Uva and Central provinces in Sri Lanka (see Figure F.1 in Appendix F), type 2 schools show the lowest achievement rates. Therefore, the population of this study was junior secondary students who studied in type 2 government schools situated in the low socio-economic districts in Sri Lanka. The Annual Report of Central Bank of Sri Lanka (2015) identified that in 2014 type 2 schools accounted for 35.6% of all schools and 20.8% of all pupils in Sri Lanka.

A number of low socio-economic districts in Sri Lanka have low participation rates in education at junior secondary level. The report, *Treasures of the Educational System in Sri Lanka: Restoring Performance, Expanding Opportunities and Enhancing Prospects* (World Bank, 2005), identified the disadvantaged districts as: (i) seven of the eight districts of the North-Eastern Province, Jaffna, Kilinochchi, Mullativu, Vavuniya, Mannar, Trincomalee and Amparai; (ii) the two districts of the Uva Province, Monaragala and Badulla; (iii) the two districts of the North-Central Province, Anuradhapura and Pollonaruwa; and (iv) one district each from the Southern and Central Provinces, Hambantota and Nuwara Eliya, respectively.

For this study, the type 2 government schools chosen were those in the Monaragala and Nuwara Eliya districts in Sri Lanka because they represented both Sinhala-medium and Tamil-medium schools (see Figure F.2 in Appendix F). Students who were studying in the eighth grade in the selected schools were included in the target population. Eighth-

grade students were elected purposively for three reasons: (1) the study was based on early adolescent students and eighth-graders are at that particular stage; (2) the majority of the students in those areas leave the school at eighth or ninth grades; (3) the MES-JS was designed for students in the 9–13 age range and the average age of students in this study was 12.8 years.

### **3.7.2 Sampling methods**

Creswell and Plano Clark (2007) explained that the data collection processes in the explanatory design consist of initially collecting quantitative data, analysing the data and employing the results to inform the follow-up qualitative data collection. For the quantitative phase of this study, schools from two districts were purposefully chosen based on Department of Education records indicating lower levels of achievement. In each school, students were selected using stratified random sampling methods. Best and Khan (2006) explained that stratified random sampling is desirable to sub-divide the population into minor homogeneous groups to obtain more precise representation. A stratified random sample proportional variant was used in this study in which the number of the units randomly chosen from each level is the same as the number in the target population (Tashakkori & Teddlie, 2003). The stratum used to select the students was based on the number of classes in Grade 8 in each school and their gender.

The qualitative sample for this study was chosen using a purposive sampling method. According to their MES-JS MQ scores, the lowest motivated and engaged students were identified and chosen for interviewing.

#### **3.7.2.1 Stratification of the student sample**

The stratum used to select the students was based on the students' gender and the number of classes in Grade 8 in each school. It should be noted that other than the schools 2, 3, 4, 5 and 12, the schools in the sample had only one class in Grade 8 (particularly in the Sinhala-medium schools) and the number of students per class was low (higher in Sinhala-medium schools). Therefore, the researcher had to choose a larger number of students from each class to obtain the necessary sample size.

Students were selected from each class by randomly identifying students by name from the class roll and calling them to the front of the classroom to explain that they had been selected to participate in the survey. As required by the ethical standards of this study (discussed in section 3.11), prior to participations in the study, students were informed about the purpose of the study and told they could withdraw at any time; no student withdrew upon receiving the information.

In the Tamil-medium schools, participants were 24 students in school one, with 13 male and 11 female students, of which 10 students from each gender were randomly selected. In school two, there were two classes of 25 and 22 students. One class had 10 male students and 15 female students, and the other had 11 male students and 11 female students. From each class, five male and five female students were chosen. In school three, there were two classes with 26 and 21 students with 12 male and 14 female and 11 male and ten female students respectively. From each class, five male and five female students were chosen. In school four, there were two classes with 18 and 19 students with eight male and 10 female and nine male and ten female students respectively. From each class, five male and five female students were chosen. In school five, there were two classes with 23 and 21 students with 12 male and 11 female and 11 male and 10 female students respectively. From each class, five male and five female students were chosen.

In the Sinhala-medium schools there were 24 students in school one in Sinhala-medium with 11 male and 13 female students. Out of those students, 10 students of each gender were randomly selected. In school two, there were 14 students in the class with eight male and six female students. Out of those students, five students from each gender were randomly selected. In school three, there were seven students in the class with four male and three female students. Out of those students, two students from each gender were randomly selected. In school four, there were 15 students in the class with seven male and eight female students. Out of those students, five students from each gender were randomly selected. In school five, there were 21 students in the class with 11 male and 10 female students. Out of those students, eight students from each gender were randomly selected. In school six, there were 25 students in the class with 11 male and 14 female students. Out of those students, 10 students from each gender were randomly selected. In

school seven, there were two classes with 20 and 21 students with 10 male and 10 female and 11 male and 10 female students respectively. From each class, five male and five female students were chosen.

As a whole, the quantitative sample of this study was chosen randomly based on number of students in each class and their gender. Altogether, 100 male students and 100 female students from both Tamil and Sinhala-medium schools were chosen as the quantitative sample of this study as summarised in Table 3.1.

**Table 3.1: Stratification of the student sample**

School	No. of classes in Grade 8	Total no. of students in each class	No. of students		Selected students		Total no. of students	
			M	F	M	F	M	F
1	1	24	13	11	10	10	10	10
2	2	C 1-25	C 1-10	C 1-15	C 1-5	C 1-5	10	10
		C 2-22	C 2-11	C 2-11	C 2-5	C 2-5		
3	2	C 1-26	C 1-12	C 1-14	C 1-5	C 1-5	10	10
		C 2-21	C 2-11	C 2-10	C 2-5	C 2-5		
4	2	C 1-18	C 1- 8	C 1-10	C 1-5	C 1-5	10	10
		C 2-19	C 2- 9	C 2-10	C 2-5	C 2-5		
5	2	C 1-23	C 1-12	C 1-11	C 1-5	C 1-5	10	10
		C 2-21	C 2-11	C 2-10	C 2-5	C 2-5		
6	1	24	11	13	10	10	10	10
7	1	14	8	6	5	5	5	5
8	1	7	4	3	2	2	2	2
9	1	15	7	8	5	5	5	5
10	1	21	11	10	8	8	8	8
11	1	25	11	14	10	10	10	10
12	2	C 1-20	C 1-10	C 1-10	C 1-5	C 1-5	10	10
		C 2-21	C 2-11	C 2-10	C 2-5	C 2-5		
Total no. of students							100	100

### 3.7.3 Sample size

Determining the sample size is a significant aspect in any study and it should achieve the objectives of the study (Cohen et al., 2011). Generally, a large sample size is more consistent than a lesser one because it tends to correspond better to the population, enabling results to be more reproducible and allowing the use of more advanced statistics (Patel, Doku, & Tennakoon, 2003). The nature of this study is that the quantitative sample comprised a larger number of data points and the qualitative sample comprised a smaller number of data points. This will be discussed in the next section.

### **3.7.3.1 The quantitative study sample**

The Uva Provincial Department of Education identified 119 type 2 government schools in three educational zones (Monaragala, Wellawaya and Bibile) in Monaragala district. The Central Provincial Department of Education identified 172 type 2 government schools in five educational zones (Walapane, Nuwara Eliya, Kotmale, Hatton and Hanguranketha) in Nuwara Eliya district. Thus, five schools from Monaragala and five schools from Nuwara Eliya districts were purposely chosen to represent all the education zones. Ten male and ten female students were randomly chosen to complete the survey from each school as explained above. It should be noted that, those type 2 schools did not have many students in a class. The maximum number of students in a class was 26 (see Table 3.1). Therefore, it was decided to select 10 male and 10 female students from each class. As a result, 100 8<sup>th</sup> grade Sinhala-medium students from five type 2 schools in Monaragala district and 100 8<sup>th</sup> grade Tamil-medium students from five type 2 schools in Nuwara Eliya district were chosen using stratified random sampling (as explained in section 3.7.2.1 to complete the quantitative component of the study).

When the researcher commenced the study with Tamil-medium students, no problem emerged obtaining the required number of participants (100) for the sample of students (from five schools). However, in relation to Sinhala-medium students, the researcher was unable to obtain the same number of students to complete the survey because of absenteeism compounded by the limited number of students in that particular grade. It should be noted that all of the Sinhala-medium schools (initial) in the sample had only one classroom in that particular grade. Therefore, to obtain the required sample size, the researchers recruited another two Sinhala-medium schools (one each from Wellawaya and Bibile zone).

Thus, in the end, the sample consisted of seven Sinhala-medium schools and five Tamil-medium schools (see Tables I.2 and I.3 in Appendix I). The number of participants (students, teachers and principals) selected for interviewing was also changed. But the total number of students' sampled in the quantitative study was not changed. Sampling is further discussed in the limitations of the study sections of this thesis. The quantitative sample of this study is shown in Table 3.2.

**Table 3.2: Quantitative study sample chosen from two low-socio economic districts**

District	No. of schools	No. of students	
		Male	Female
Monaragala (Sinhala-medium)	7	50	50
Nuwara Eliya (Tamil-medium)	5	50	50
Total	12	100	100

### 3.7.3.2 The qualitative study sample

The students to be interviewed were chosen according to results from MES-JS showing low positive motivation and engagement scores and mostly high negative motivation and engagement scores. When selecting students for interviewing, the following procedure was undertaken. There are eleven facets of MES-JS that are separated into four groups (booster thoughts, booster behaviours, mufflers and guzzlers) and each facet consists of four items. Each student's answers to the four items on each facet were aggregated and converted to a raw score out of 100, using the motivation and engagement score sheet provided (see Appendix J for a sample score sheet). The raw scores on the MES-JS can be converted to 'normative' scores referred to as MQ scores (Appendix K). MQs have a mean of 100 and a standard deviation of 15 (as in an IQ score). Therefore, those raw scores were converted in to MQ scores. According to Martin (2014a), for the six motivation and engagement boosters, higher MQ scores are better. One hundred is the average MQ for a sample of junior school students. The scores can be interpreted as follows:

- A-grade: MQs equal to or greater than 115
- B-grade: MQs between 100 and 114 inclusive
- C-grade: MQs between 85 and 99 inclusive
- D-grade: MQs equal to or less than 84

For the five motivation and engagement mufflers and guzzlers, lower MQ scores are better. One hundred is the average MQ for a sample of junior school students. The scores can be interpreted as follows.

A-grade: MQs equal to or less than 85

B-grade: MQs between 86 and 100 inclusive

C-grade: MQs between 101 and 115 inclusive

D-grade: MQs equal to or greater than 116

Accordingly, the male and female student who received the lowest score for booster score and highest score for muffler and guzzler scores in each school (both medium) was selected to be interviewed (see Tables 3.3 and 3.4). As shown in Table 3.3, Tamil-medium students average booster score was 99.8 and average muffler and guzzler score was 123.5. Table 3.4 shows that Sinhala-medium students' average booster score was 98.6 and the average muffler and guzzler scores was 117.12. That is, both medium students average boosters were lower, and mufflers and guzzlers scores were higher than their respective average score (100), and, thus, they were considered as low motivated and engaged in learning.

When considering the individual boosters' score for each student, 11 students had higher scores than the average score, but, their mufflers and guzzlers scores were also higher than the average score. One student had a muffler and guzzler score that was lower than the average score, but that student's booster score was also lower than the average score. When selecting the least motivated and engaged students, the researcher mostly considered their higher negative motivation and engagement scores rather than their lower positive motivation and engagement scores because this study was based on negative school-related conditions impacting on student motivation and engagement in learning.

**Table 3.3: Boosters, and mufflers and guzzlers scores of interviewed Tamil-medium students**

Interviewed Student	MQ score for Boosters	Grade for Boosters	MQ score for Mufflers and Guzzlers	Grade for Mufflers and Guzzlers
1	101.6	B	124.2	D
2	103.5	B	126.6	D
3	107	B	126.6	D
4	101.3	B	122	D
5	92.8	C	130.6	D
6	96.6	C	122.8	D
7	103.8	B	117.4	D
8	91.6	C	117.6	D
9	95.3	C	119.6	D
10	104.6	B	128.2	D
Average	99.8	C	123.5	D

**Table 3.4: Boosters, and mufflers and guzzlers scores of interviewed Sinhala-medium students**

Interviewed Student	MQ score for Boosters	Grade for Boosters	MQ score for Mufflers and Guzzlers	Grade for Mufflers and Guzzlers
1	103.6	B	114.4	C
2	97.6	C	117.2	D
3	99.1	C	118.6	D
4	98.3	C	111.6	C
5	98.3	C	117.2	D
6	102.3	B	120.2	D
7	92.8	C	117.4	D
8	92.8	C	97.8	B
9	93.6	C	100.8	C
10	103.8	B	138	D
11	103.3	B	125	D
12	97.0	C	119	D
13	105.1	B	126.6	D
14	92.8	C	117.4	D
Average	98.6	C	117.12	D

Thus, the sample for the qualitative study consisted of 24 students (14 Sinhala-medium students (seven male and seven female) and ten Tamil-medium students (five male and

five female)). Twelve teachers who taught in Grade 8 classes were also chosen to participate in semi-structured interviews.

Twelve schools were selected for this study and seven of the schools had only one class for the particular grade of interest. Therefore, seven teachers from those schools were selected. Five schools had two parallel classes in the particular grade (see Table 3.1). One teacher from either class in those five schools was selected. In sum, 12 teachers were selected. Twelve principals, one from each school, were also chosen to participate in the semi structured interviews.

Table 3.5 presents the sample of the qualitative component of this study.

**Table 3.5: Sample chosen for conducting interviews**

District	No. of schools	No. of students		No. of teachers	No. of principals
		Male	Female		
Monaragala (Sinhala-medium)	7	7	7	7	7
Nuwara Eliya (Tamil-medium)	5	5	5	5	5
Total	12	12	12	12	12

### 3.8 Data collection process

Under this section, the context of the research area and data collection procedures taken in both quantitative and qualitative phases will be explained. Two data collection procedures were followed in this research: for the quantitative phase and for the qualitative phase

#### 3.8.1 Data collection procedures

The steps followed to collect quantitative data from participants in each school were similar. On the first day, (Monday) the participants (students, teachers and principals) were made aware of the research process and given information sheets about the research. Then, students were chosen randomly to complete the survey. On the same day, consent forms and assent forms for completion by parents were sent through the selected students to their parents or guardians (see section 3.11 for more information about information

sheets, consent forms and assent forms). In this study, the researcher spent four to five days collecting both types of data from each school. The number of days spent depended on receipt of parents' consent and assent forms. The researcher was able to conduct the research within four days in nine schools, and five days in the remaining. This was because some students forgot to get their parents to complete the consent forms and bring them back on the following day. On the second day, Tuesday (rarely, Wednesday), completed consent forms and assent forms were collected by the researcher. All the parents/guardians gave their consent for their children to contribute to this study.

Most parents of the student sample had low literate but were not illiterate. In translating the relevant documents into Sinhala, the researcher ensured she used simple language. The researcher also advised the Tamil translator to use simple language when she translated parents' information and consent form for children. Upon completion of the translations, the researcher checked the Sinhala documents with a Sinhala speaking colleague asking whether they were suitable for those in the Sinhala-medium. With regard to Tamil-medium, the researcher asked a teacher who is Tamil to read them and ensure the documents were simple and suitable for parents' education level. In the Sri Lankan context, asking and gaining parental assent is not generally problematic. Parents normally give permission if it is relevant to a school matter. Accordingly, the researcher assured that all of the forms were understood by the parents and were given their consents without having any issue.

On the same day that all assent forms were received, the researcher administered questionnaires to the students; the MES-JS was administered by the researcher to the 100 Sinhala-medium and 100 Tamil-medium students personally (self-administered survey). Students were given oral instruction on how to complete the scale. In relation to Sinhala-medium students, the researcher gave all the instructions to the participants. The class teacher in each class provided instructions in Tamil to the Tamil-medium students. All the students completed the surveys within their school premises in places permitted by the school. The surveys were administered in the morning (around 10.00–11.00 a.m.) on weekdays (mostly on Tuesdays).

It took roughly 30 minutes for each student to complete the scale. Some students raised issues in relation to some statements and clarifications were made at the same time. After completion, the researcher was able to collect all the completed surveys. No non-respondents or partially responded scales were received. After the students completed the scales, the researcher checked all for completeness. Immediately after collecting the completed scales, the researcher manually calculated the MES-JS raw scores and MQ scores for those completed scales. The lowest motivated and engaged students from each of the school were identified in relation to gender and ethnicity to conduct semi-structured interviews. The selected students were asked to participate in an interview on the following day. From the very beginning the students had been informed that only two students would be selected for interviews to guarantee that other students would not be dissatisfied.

### **3.8.2 Data collection procedures in the qualitative phase**

Upon analysis of the quantitative stage of the study, interview questions were refined to more narrowly focus the results. Three separate interview schedules, one for students (see Appendix L), one for teachers (see Appendix M) and one for principals (see Appendix N) were designed (in English) for follow-up interviews to provide triangulation and to learn additional information concerning school-related conditions impacting early adolescents' motivation and engagement in learning and motivational strategies taken by the schools to support their motivation and engagement towards learning. Both supervisors of this research project reviewed and collaborated on formulating the interview questions. Further, all the interview scripts were translated into Sinhala-medium by the researcher and (see Appendix O) all the Tamil-medium interview scripts were translated by a Tamil lecturer at the Open University of Sri Lanka (see Appendix P). The information sheets, consent forms and assent forms (which will be discussed in section 3.11) were also translated into Sinhala and Tamil-medium by those two translators. All the Sinhala-medium documents were then certified by a native Sinhala lecturer at the University of New England, Australia and all the Tamil-medium documents were certified by a native Tamil lecturer at the Open University of Sri Lanka.

On the third day (rarely, fourth day) the interviews were carried out with the students in the afternoon (around 1.30–2.30 p.m.) on weekdays (mostly Wednesdays) in the places permitted by the schools. On the following day (mostly Thursdays), the interviews were conducted with the teachers and principals in the afternoon (around 1.30–2.30 p.m.). Since the researcher is a native Sinhala speaker, Sinhala-medium interviews were conducted personally with 14 students, seven teachers and seven principals individually. With regard to the Tamil-medium interviews and because the researcher has limited proficiency in Tamil, the support of a word interpreter was utilised for the student interviews. However, all Tamil teachers and principals chosen had proficiency in the Sinhalese language. Therefore, the researcher could collect that data without the support of a word interpreter. From the Tamil-medium schools, ten students, five teachers and five principals were interviewed. On average, the student interviews took 40 minutes to complete and the teacher and principal interviews took 30 minutes.

It should be noted that initially, the decision was made to audio-record interviews. However, because of problems (technical problems, electricity problems and so on – these interviews were conducted in low socio-economic areas which do not have enough facilities) it was decided to take notes instead. Thus, all the interviews were face-to-face, semi-structured, and transcribed into Sinhala and English (hand written notes); later, the researcher translated all the transcripts into English for coding. Data analysis procedures undertaken in this research will be discussed next.

### **3.9 Data analysis**

The task following data collection in any research is data analysis. The analysis, which is consistent with the methodological structure of the study, makes sense of the gathered, unprocessed data. As a result, it is important that the researcher selects appropriate techniques to analyse data. Creswell and Plano Clark (2011) advise that when two data collections are implemented sequentially and connected as in the explanatory design, quantitative and qualitative data should be analysed separately and not merged. Therefore, in this study also, the two data analysis phases will be presented independently (Chapter

4: Quantitative data analysis, findings, and discussion Chapter 5: Qualitative data findings and discussion).

Further Creswell and Plano Clark (2011) emphasised that the interpretation of findings in mixed methods research can be called ‘drawing conclusions’ or ‘drawing inference’. Even though conclusions can be made following each stage, the meta-inferences are made at the end of the research and integrated in to the wider explanation being drawn in the study’s conclusions or discussion section (Chapter 6).

### **3.9.1 Quantitative data analysis**

The aim of quantitative data analysis is to disclose the fundamental patterns, tendencies, and relationships of a study’s background condition. Quantitative data analysis does not consider the use of statistical tests to process statistics; rather it employs those numerical tests as an instrument to make suitable inferences out of the data (Albers, 2017). Cohen et al. (2011) noted that statistical analysis can be undertaken employing software, for example, SPSS (Statistical Package for the Social Sciences) or Microsoft Excel. In this study, IBM SPSS-Amos version 24 and SPSS statistics version 25 were employed for analysing quantitative data.

In this study, CFA was used to measure the construct validity of MES-JS using IBM SPSS-Amos version 24. SPSS statistics version 25 was employed for conducting exploratory factor analysis, identifying early adolescents’ motivation and engagement levels, age, gender and school differences of motivation and engagement in learning.

A data screening process was employed in this study, with the dataset checked for missing data, reverse-scored items and outliers. No missing data was found in the data sheet. The outliers removed in this study are discussed in Chapter 4.

#### **3.9.1.1 Confirmatory factor analysis**

The MES-JS had been developed based on an Australian context. Therefore, to determine the construct validity of MES-JS for Sri Lanka, CFA was employed. Thompson (2004), explained that there are two methods of factor analysis: exploratory factor analysis (EFA) and CFA. EFA is used for building theories and CFA is used principally for testing theories (Matsunaga, 2010). EFA is recognised as a data-driven method, while CFA is

considered a theory-driven method. Therefore, the use of EFA or CFA should be carefully considered, and a selection made in relation to the goal of the research (Hurley et al., 1997). Fabrigar, Wegener, MacCallum and Strahan (1999) explain that CFA needs a researcher to indicate the exact number of factors and state the method of zero and non-zero loadings of the calculated variables on the general factors. In other words, CFA is employed for verifying a hypothesised structure (Woodrow, 2014).

In relation to the quantitative data analysis, initial CFA was employed to calculate the construct validity of the MES-JS in the Sri Lankan context. However, the CFA method did not offer a robust solution of the present study sample. As a result, an EFA was employed. (This will be further discussed in Chapter 4).

### **3.9.1.2 Exploratory factor analysis**

EFA is not a method for the testing of hypotheses or confirming ideas. It is, to a certain extent, intended for use in exploring the form of questionnaires and item interrelationships (Briggs & Cheek, 1986; Floyd & Widaman, 1995). Henson and Roberts (2006), Pett, Lackey, and Sullivan (2003), and Thompson (2004) instructs that, in EFA, the researcher makes no assumptions about the number or form of the variables. Therefore, the researcher can explore the main dimensions to create a theory or model by using a comparatively large set of latent constructs regularly represented by a set of items. Some general uses of EFA are to decide what sets of items match together in a scale, to reveal the dimensionality of a scale, and to decide what characteristics are most significant when arranging a group of items. EFA can also be used to generate factor scores representing standards of the primary constructs to be used in other analyses (DeCoster, 1998).

According to Mulaik (1990), EFA is mainly suitable for exploratory analyses aimed to determine the number of dimensions underlying a response set, the subjective meaning of each dimension, how the items relate to the dimensions, and how the dimensions relate to each other. EFA is also a suitable tool to evaluate a measure's content validity, since the extracted factors stand for the dimensions that they measure (Floyd & Widaman, 1995; Grimm & Yarnold, 1995). Since EFA is mainly a data-driven technique, it allows researchers to retain the number of factors according to their choice. Kline (1994) notes that the goal of EFA is to discover the field to find out the main constructs and elements.

As noted previously, CFA did not provide a robust factor solution for this study sample. Therefore, it was decided to conduct EFA to identify the factors in relation to Sri Lankan low socio-economic education context. According to the EFA results, four factors/scales (PM, PE, FAA, and UC) were identified for the Sri Lankan low-socio-economic context early adolescents' motivation and engagement in learning.

### **3.9.1.3 Descriptive statistics**

The aim of the procedures and central concept in descriptive statistics is simply to assist the explanation and conclusion of data. Descriptive statistics refers to the use of illustrative or graphical demonstration of the data (Cooksey, 2014). In this study, descriptive statistics were measured for all four scales (PM,PE,FAA, and UC) and mean, standard deviation, range of responses, skewness, kurtosis scores, histograms, and box-plots for each factor are presented in Chapter 4.

### **3.9.1.4 Inferential statistics**

In inferential statistics, calculations of the study sample and parameters are calculations of the population; and conclusions are drawn about the parameters from the figures (Wiersma & Jurs, 2009). There are two categories of inferential statistics: parametric and non-parametric (Blaikie, 2003).

#### **Parametric statistics**

Parametric methods are a numerical method describing the probability distribution variables and draws conclusions about the parameters of the distribution (Kim, 2015). Parametric measures are strong and need fewer data to make a powerful inference (Neideen & Brasel, 2007). Though, to employ a parametric test, parameters of the data need to be exact. The data must be distributed normally. This means all data points must have a bell-shaped curve and there should be no skewed data above or below the mean. The data also needs to have equal variance and equal standard deviation.

In addition, the data must be continuous (Neideen & Brasel, 2007). Robson (1994) notes the conditions that must be included: the observations are to be made from normally distributed populations, these populations must have equal variances and variables engaged must have been calculated at least at interval scale, in addition the observations

must be independent. These requirements are supported by Cooksey (2014) who described it as “assumption of independently distributed errors”. The measure selected to analyse the data is based on the kind of data gathered and the main characteristics of those data (Neideen & Brasel, 2007).

Cohen et al. (2011) stated that parametric tests assist the researcher in data processing and in drawing conclusions. Parametric tests are stronger and usually require fewer data to draw a robust inference than nonparametric tests. Abdulazeez (2014) explained that, though the nonparametric tests need fewer assumptions and could be employed on a broad span of data types, parametric tests are favoured because nonparametric tests are likely to be less responsive to perceiving differences among samples or an impact of the independent variable on the dependent variable. The power effectiveness of the nonparametric tests is less than the parametric tests. A larger sample size is essential for the nonparametric tests to discover any certain effect at a particular significance level than for the parametric tests (Robson, 1994).

However, if the data veer significantly from the assumptions of parametric tests, using those tests can result in invalid inferences. Therefore, researchers have to be aware of the assumptions connected with a parametric tests and should study techniques to assess the validity of those assumptions (Abdulazeez, 2014).

In this study with the new four scales identified (PM, PE, FAA and UC), the parametric tests used were *t*-tests, two-way MANOVA, two-way ANOVA, and one-way ANOVA; *t*-tests were used to identify the significant differences between gender and ethnic groups in four motivation and engagement dimensions; two-way MANOVA and two-way ANOVA tests were used to evaluate the interaction effect between gender and ethnic groups; and one-way ANOVA tests were employed to identify the significant differences between schools based on ethnicity.

### ***Assumption of normality***

Kim (2013) explains that the formal normality tests consisting of the Shapiro-Wilk test and the Kolmogorov-Smirnov test might be employed for small to medium sized samples but might be unreliable for larger samples. Moreover, their use might be difficult since the

“eyeball test” and formal normality tests might demonstrate inappropriate outcomes for the same data. For solving the issue, a different way of assessing normality by skewness and kurtosis of the distribution might be employed, which might be more suitable for any sample size. One method (Kim, 2013) to assess normality for medium-sized samples ( $50 < n < 300$ ) engages measurement of the Z-score for both skewness and kurtosis. This is measured by dividing the value of the skewness/kurtosis statistic by the standard error. If the absolute value of the Z-score is greater than 3.29, the distribution is regarded as being beyond the satisfactory limits for normality.

Visual examination of the distribution might be employed for evaluating normality (Field, 2009; Oztuna, Elhan, & Tuccar, 2006). While data are offered visually, distribution assessment could be made by the readers themselves (Elliott & Woodward, 2007). For visual inspection of normality, the frequency distribution (histogram) is employed (Ghasemi & Zahediasl, 2012).

In this study, the normal distribution assumption was checked in relation to the four scales that resulted from the EFA using two methods. Those were: assessing normality by skewness and kurtosis of the distribution and visual examination of the distribution. All the scales showed substantial normality in this study, as discussed in Chapter 4.

#### ***Assumption of homogeneity of variance***

Williamson and Johanson (2013) explained that the assumption of homogeneity of variance assumes there is no difference between the variance in the distributions. Osborne (2008) explained that the assumption of homogeneity of variances requires the error variances to be equal among the populations under examination. In this study, the homogeneity of variances was measured for all the scales in relation to gender groups, ethnic groups and schools. The PM, PE, and FAA scales demonstrated homogeneity of variance based on gender but only the PM and FAA scales variances demonstrated homogeneity of variance for ethnicity. The test based upon grouping by school indicated that only the PM scale demonstrated homogeneity of variance (Chapter 4).

### ***Assumption of data type***

Neideen and Brasel (2007) state that to employ parametric tests, data should be continuous. Robson (1994) emphasised that variables must have been calculated at least at an interval scale. In an ordinal scale, responses could be rated or ranked but the distance between those is not calculable. In interval data, the difference between responses can be measured (Sullivan & Artino, 2013).

Jamieson (2004) noted that specialists disagreed on whether the median should be employed as the calculation of central tendency for Likert scale data. Likewise, they have questioned whether frequencies, contingency tables, tests, the Spearman rho assessment, or the Mann-Whitney *U* test should be employed for analysis as an alternative to parametric tests, which need interval data (e.g., *t*-tests, analysis of variance, Pearson correlations, and regression). However other experts have argued that if there is a sufficient sample size (at least 5-10 observations per group) and if the data are normally distributed (or nearly normal), parametric tests can be employed with Likert scale ordinal data. Therefore, parametric tests are able to produce satisfactory unbiased answers that are adequately close to “the truth” when analysing Likert scale responses (Norman, 2010). This assumption was fulfilled in this study (see Chapter 4).

### ***Assumption of independently distributed errors***

Best and Khan (2006) described how choosing one case is independent of choosing any other case. This assumption can be managed via research design and samplings structure (Osborne, 2008). If this assumption is violated, it directs to dependent or correlated observations. According to Osborne (2008), in most research conditions, the need for independence is characteristically realised by randomisation. In instances of non-independence, the scores/observations of the subject are impacted by other subjects or prior scores. In this study, the observations were independent and thus this assumption was fulfilled.

As a whole, of the four basic assumptions of normality, three were fulfilled: data type and independently distributed errors. The assumption of homogeneity of variances was not fulfilled.

## **Non-parametric statistics**

Nahm (2016) explained that parametric statistical analyses are undertaken when assumptions are met. If these assumptions are not satisfied, if the distribution of the sample is skewed, or the distribution is unidentified because of small sample size, parametric tests cannot be employed. In that situation, nonparametric tests are an attractive option. There are two considered applications in nonparametric tests. First, as easy methods to analyse ordinal data and, second, as alternatives to parametric tests, frequently employed when there is proof of non-normality (Fagerland, 2012).

Nonparametric tests decrease the danger of making incorrect inferences since these tests do not make any assumptions about the population. Therefore, nonparametric methods are always valid but not always systematic, whereas parametric methods are always systematic, but not always valid (Nahm, 2016).

In this study, a nonparametric test, Kruskal-Wallis  $H$  tests, was used to identify the significant differences among schools in relation to students' motivation and engagement in learning.

### **3.9.1.5 Quantitative data analysis methods**

With the four scales identified in this study, parametric tests were employed using  $t$ -tests, two-way MANOVA, two-way ANOVA, and one-way ANOVA. A nonparametric test, the Kruskal-Wallis  $H$  test was used in the quantitative phase. It should be noted that all the quantitative results were interpreted according to the guidelines provided by Cooksey (2014) and all the quantitative data were presented according to the APA 6<sup>th</sup> edition. The ethnic groups in this study represent the two districts in this study: Sinhala-medium represents the Monaragala district and Tamil-medium represents the Nuwara Eliya district, and thus separate analyses for districts will not be undertaken.

#### **$t$ -tests**

The aim of the  $t$ -tests is to compare two independent (unrelated) groups of participants on a single dependent measure (Cooksey, 2014). Further, a  $t$ -test is employed to determine whether there are statistically significant differences between the means of two groups,

using parametric data made from random samples with a normal distribution. Similarly, Cohen et al. (2011) explained that *t*-tests are employed to compare the means of two randomly allocated groups. Kim (2015) explained that *t*-tests are a kind of parametric method that can be employed when the samples meet the conditions of normality, equal variance, and independence.

In this study, *t*-tests were used to identify the significant differences between gender and ethnic groups in four motivation and engagement dimensions. Before conducting *t*-tests, the assumptions for *t*-tests were satisfied: the dependent variable was calculated on a continuous scale, the independent variable has two categorical, independent groups, there was independence of observations, no significant outliers, and the dependent variable was roughly normally distributed for each group of the independent variable, and there was homogeneity of variances (Field, 2013).

### **MANOVA and ANOVA tests**

Multivariate analysis of variance (MANOVA) tests for significant differences in two or more dependent variables among groups defined by one or more grouping or independent variables (Bray & Maxwell, 1985; Hair, Black, Babin, & Anderson, 2010). Cooksey (2014) explains that the aim of MANOVA is to compare groups of participants classified according to one or more grouping (independent) of variables on two or more dependent variables at the same time. ANOVA is a hypothesis-testing method employed to measure the equality of two or more population means by examining the variances of samples. In short, MANOVA is the multivariate generalisation of univariate ANOVA (Grice & Iwasaki, 2007).

In this study, two-way MANOVA and two-way ANOVA tests were used to evaluate the interaction effect between gender and ethnic groups. Therefore, first, assumptions for two-way MANOVA were satisfied: two or more dependent variables calculated at the interval or ratio level; two independent variables consisting of two or more categorical, independent groups; independence of observations; sufficient sample size; no univariate or multivariate outliers; multivariate normality; linear relationship between each pair of

dependent variables for all combinations of groups of two independent variables; homogeneity of variance-covariance matrices; and no multicollinearity (Field, 2013).

Second, assumptions for two-way ANOVA tests were also satisfied: dependent variable is calculated at the continuous level; two independent variables consisting of two or more categorical, independent groups; independence of observations; no significant outliers; dependent variable **is** roughly normally distributed for each combination of the groups of the two independent variables, and homogeneity of variances for each combination of the groups of the two independent variables (Field, 2013).

In this study, one-way ANOVA tests were employed to identify the significant differences between schools based on ethnicity. Therefore, assumptions for one-way ANOVA were satisfied: dependent variable is calculated at the interval or ratio level; independent variable consist of two or more categorical, independent groups; independence of observations; no significant outliers; and dependent variable **is** roughly normally distributed for each category of the independent variable; and homogeneity of variances (Field, 2013).

### **Kruskal-Wallis *H* tests**

Cooksey (2014) explains that the Kruskal-Wallis *H* test is the non-parametric test of one-way ANOVA. It calculates the significance of the difference among three or more independent groups based on mean ranks rather than mean scores. He also notes that this test can be used when behavioural data are gathered through ranks.

Kruskal-Wallis *H* tests were used to identify the significant differences among schools in this study. Hence, assumptions for the Kruskal-Wallis *H* tests were satisfied: dependent variable is calculated at the ordinal or continuous level; independent variable includes two or more categorical, independent groups; independence of observations; and distributions in every group have an equal shape (Field, 2013).

### **3.9.2 Qualitative data analysis**

As stated by Cohen et al. (2011), qualitative data analysis comprises data organisation, process and explanation. Vaismoradi (2013) argues that the employment of qualitative

descriptive approaches, for example, descriptive phenomenology, content analysis, and thematic analysis, are appropriate for researchers who want to use a comparatively low level of explanation, in contrast to grounded theory or hermeneutic phenomenology, which requires a higher level of interpretive complications. The qualitative data analysis method employed in this research was thematic analysis.

Braun and Clarke (2006) described thematic analysis as a fundamental approach for qualitative analysis. It is a process of identifying, analysing, and searching for themes or patterns to identify repeated items particularly related to the research topic. Braun and Clarke argued that themes do not simply emerge from the data but are derived by the researcher who plays a lively role in recognising them, choosing which are of interest and importance, and reporting themes to readers. King and Harrocks (2010), noted that the purpose of thematic analysis is to look for patterns of themes among the entire data set, emphasising what respondents have in common and also how they differ. Hence, the aim of analysis is not only to generate themes, but also to organise those themes in a manner that represents how they are conceptualised to link to each other. This process might involve some degree of hierarchy in relationship, in determining which key themes include sub-themes (Braun & Clarke, 2006).

Braun and Clarke (2013) further stated that thematic analysis is comparatively exceptional among qualitative analytic methods in that it simply offers a method for data analysis, and does not prescribe data collection methods, theoretical positions and epistemological or ontological frameworks. Flexibility is one of the major strengths of this method. Furthermore, it is accessible to researchers with little or no research experience, comparatively easy and quick to learn, and is a helpful method for applied research (Braun & Clarke, 2013).

There are however, some weaknesses of thematic analysis. In particular, the overlap between themes may be an issue (Braun & Clarke, 2006).

Thematic analysis was employed to analyse qualitative data gained from student, teacher, and principal interviews in this study. The thematic analysis approach used and the steps taken during the qualitative data analysis process are discussed next.

### 3.9.2.1 Thematic analysis approach

Braun and Clarke (2006) identified three main approaches to thematic analysis: (1) Inductive versus theoretical thematic analysis (ways in themes or patterns in data identified); (2) semantic or latent themes (which themes are to be identified); and (3) essentialist/realist versus constructionist (what can say about data and inform how theories meaning) thematic analysis.

Patton (1990) argues that in the inductive approach themes are recognised as being strongly connected to the data itself. However, the deductive (theoretical) approach is determined by the researcher's theoretical or analytic concentration in the area and is therefore more clearly analyst driven (Braun & Clarke, 2006). In this study, the inductive approach was used for data analysis. The data were coded without attempting to fit them into a pre-existing coding structure (Table 3.6).

**Table 3.6: Examples of coded extracts**

Data extracts	Coded for
"I don't like to learn mathematics. I hate mathematics periods. I cannot understand that"	Subject likes and dislikes
"I like reading books. But, there is no library in our school"	Lack of facilities
"Some teachers blame and punish me for not doing homework and not listening to the lesson. So, I feel very embarrassed in front of classmates"	Punishments
"In this school lots of students are frequently absent to the school. But, there is no action taken by the school administration. This school administration is so problematic"	Absenteeism
"Most of the students do not like learning. They must concentrate in learning. Learning is the only thing make them forward"	Valuing learning
"Teachers are also not motivated in teaching this kind of students. How do they motivate students towards learning? Teachers just come for their jobs"	Teachers motivation

In relation to the inductive approach, Braun and Clarke (2006) advised that if the data collection derives from interviews, the themes identified might carry little connection to

the exact questions which were asked of the participants. Furthermore, inductive analysis is a procedure of coding the data without attempting to fit them into a pre-existing coding structure, or the researchers' analytic presumptions. In this data-driven approach, researchers can have confidence that they will arrive at a required endpoint, because they do not know where it will be (Boyatzis, 1998). Braun and Clarke (2006) highlighted that a theme captures something significant about the data according to the research question, and represents some level of patterned reactions or sense in the dataset. A theme is typically wider than a code in that it includes many aspects. A high-quality code will capture one thought; a theme has a central organising concept but will hold many diverse thoughts or aspects connected to it (Braun & Clarke, 2013).

Braun and Clarke (2013) explained that themes could be discovered from a data-driven "bottom-top" method based on what is included in the data. Or they could be discovered in a rather "top-down" way in which the investigator employs the data to discover exacting theoretical views. Braun and Clarke (2006) believe that researchers should not disregard their theoretical and epistemological commitments and should not code in an epistemological void. According to Boyatzis (1998), the label should be developed at the end of the procedure of writing or creating the code. The label should be theoretically expressive to the incident being researched, obvious and brief, expressing the spirit of the theme in the fewest words possible, and relevant to the data. Keeping these tenets in mind, data were coded with a theoretical and epistemological commitment, and the themes named accordingly.

In the semantic approach, the themes are explored in the open or external views of the data (Braun & Clarke, 2006). The analyst should consider only the words of the participants. As Patton (1990) explained, the analytic process ideally involves a progression from description, where the data have basically been organised to show patterns in semantic content and summarised to interpretation, and where there is an attempt to theorise the significance of the patterns and their wider meanings and implications. In this study, the semantic approach was used because the themes were explored within an open or external meanings of the data while an attempt was made to consider patterns and their connotations.

In summary, a data driven (inductive) and semantic approach was employed for thematic analysis in this study. As explained by Braun and Clarke (2013), each approach to thematic analysis has a different purpose and it is important that the method selected is appropriate for answering the research questions. The two approaches were judged to best deal with the last two research questions (“What school-related conditions impact upon junior secondary students’ motivation and engagement in learning in low socio-economic schools in Sri Lanka?” and “What motivational strategies have been taken by the schools to increase students’ motivation and engagement in learning in low socio-economic schools in Sri Lanka?”). Thematic analysis was employed as the technique for recognising themes and patterns of meanings pertaining to students, teachers and principals’ opinions and experiences in relation to the school-related conditions, strategies taken by the schools, and suggestions to motivate early adolescents’ motivation and engagement in learning. The deciding factors in selecting thematic analysis for the qualitative data analysis method for this research study was its flexibility, its ease of use, its ability to highlight similarities and differences across the dataset, and its ability to offer a detailed, rich, and compound description of the semi-structured interviews.

It should be noted that software was not used to analyse the qualitative data; that is, these data were analysed using manual techniques involving colour coding and working through the transcript. The techniques employed are discussed in the next section, and the steps followed in the thematic analysis to generate a thematic map are explained.

### **3.9.2.2 Thematic analysis steps**

Qualitative data were analysed employing the six main stages of thematic analysis as structured by Braun and Clarke (2006): (i) becoming familiar with the data, (ii) generating initial codes, (iii) searching for themes, (iv) reviewing themes, (v) defining and naming themes, and (vi) producing the final report. The following paragraphs describe how the researcher completed thematic analysis using these six stages.

#### **Stage 1: Data familiarisation**

The first stage involved data transcribing, reading and re-reading the entire data set, and writing down the initial meanings and views (Braun & Clarke, 2006). During this stage, the field notes were transcribed to conduct the analysis. The process of transcription was

a good method for immersing and familiarising the researcher with the data (Braun & Clarke, 2006). Following transcription of the interviews, the researcher read and re-read each transcript and documented a list of ideas and notes concerning what were included within the data and how these notes and ideas might be of interest within the context of the study.

### **Stage 2: Generating initial codes**

The second stage started when the researcher was very familiar with the data and had generated a list of views (Braun & Clarke, 2006). This stage encompassed the production of the preliminary codes of the data. A code identifies a characteristic of the data that seems attractive to the researcher and refers to the most essential element or segment of the data that could be evaluated in a significant manner pertaining to the incident. Codes vary from the unit of analysis themes that are often wider and may capture several codes (Braun & Clarke, 2006).

A high-quality thematic code is one that grasps the qualitative treasures of the incident. It is functional in the research analysis, interpretation and presentation. A high-quality thematic analysis has five aspects: a label, an explanation of what the theme refers to, an explanation of how to be aware of the occurrence of the theme, an explanation of any qualifications or eliminations to the recognition of the theme, and examples (positive and negative) to reduce probable uncertainty when looking for the theme (Boyatis, 1998).

Once the researcher had read and become familiar with the content of the data and had created a list of ideas about the data, the initial coding process began. By providing complete and equal concentration to every individual transcript, the researcher coded the data manually using different colours. During this process, the researcher highlighted fascinating aspects (extracts) in the data that might form the foundation of repetitive patterns (themes) and wrote their codes on the side of transcripts (Braun & Clarke, 2006). By the completion of this stage, the researcher had generated a list of codes that collated with the data extracts. Table 3.6 provides an example of extracts and their codes.

### **Stage 3: Searching for themes**

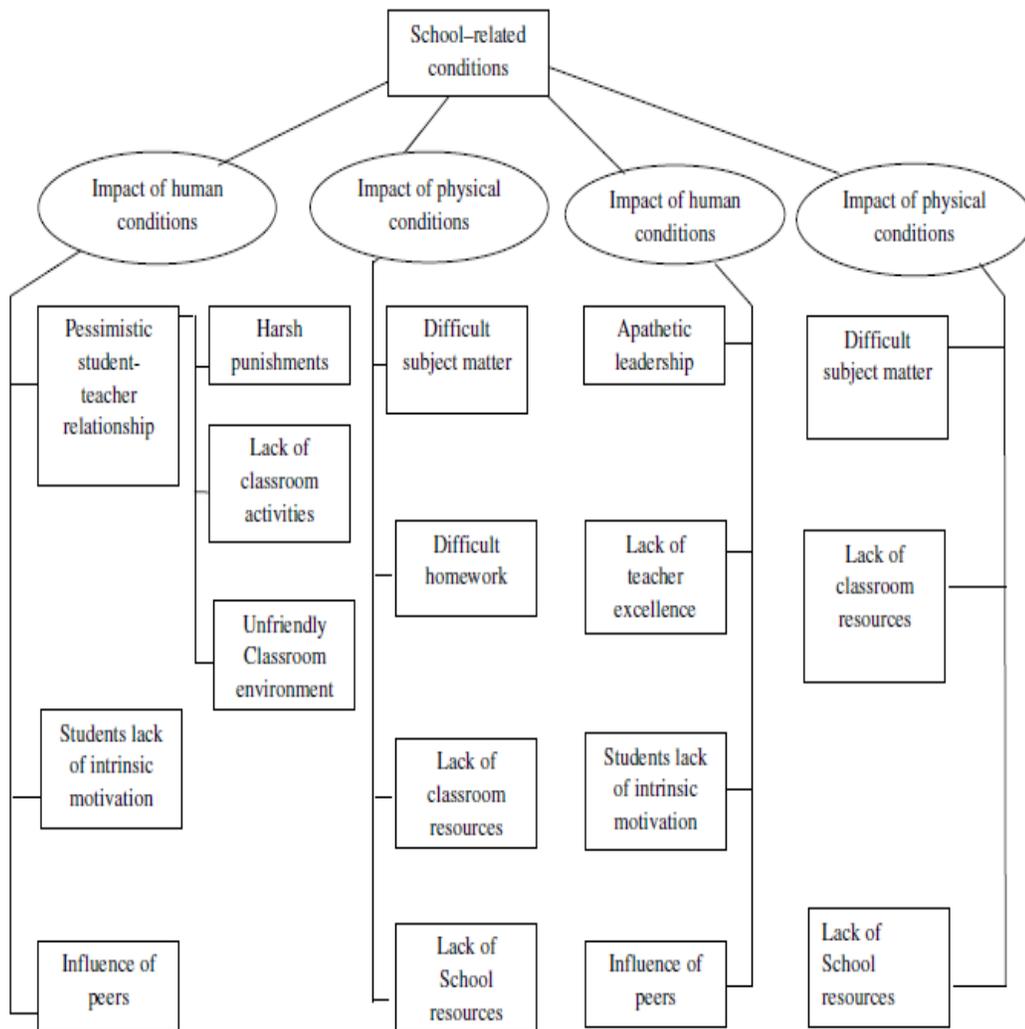
This stage follows the early coding and collecting of the data (Braun & Clarke, 2006). It involves categorisation of the diverse codes into possible themes and sub-themes. Braun and Clarke (2006) noted that visual representations (e.g., tables or mind-maps) might be useful in sorting codes into themes and sub-themes.

During this stage, the researcher examined the codes identified in the previous stage to uncover broader patterns of meanings (overarching themes and sub-themes within them). The researcher then organised the codes and sorted them into candidate themes and sub-themes based on their overlap and similarity in meaning. At this stage, the researcher developed the initial thematic map (Figure 3.1). It was basically based on school-related conditions, motivational strategies, and suggestions made by the research participants. It should be noted that the themes related to motivational strategies cannot be claimed as exact motivational strategies and were named according to the participants' responses.

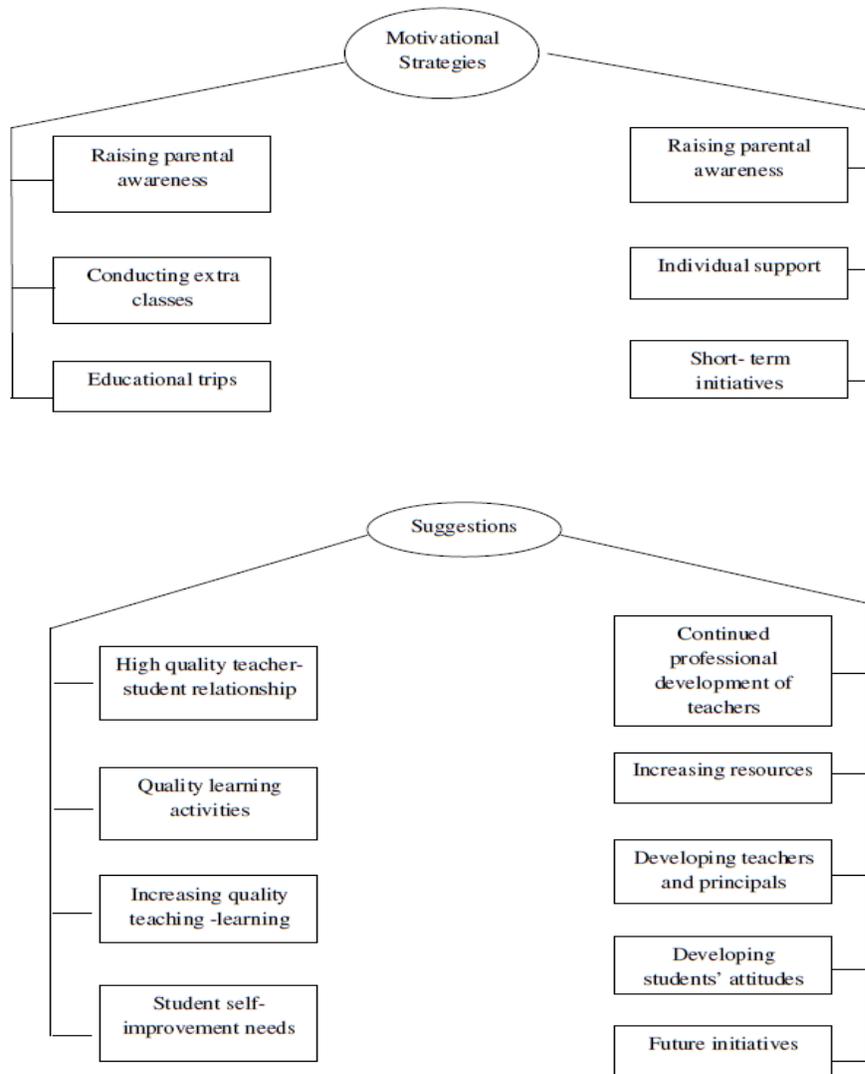
### **Stage 4: Reviewing themes**

This stage involved the review and modification of the candidate themes and sub-themes recognised in the previous stage. Braun and Clarke (2006) explained that some themes or sub-themes may be abandoned (e.g., if there are not enough data to support them), merged (e.g., two seemingly disconnected themes might form one theme), and/or broken down to create additional themes or sub-themes.

The first level encompasses reviewing the themes against the coded data extracts to ensure that all the collected data extracts for every theme create a logical pattern. The second level entails reviewing the candidate themes alongside the whole data set to check for the validity of individual themes according to the data set and to ascertain whether they accurately reproduce the connotations apparent in the data set as an entity.



**Figure 3.1: Initial thematic map**  
(part 1)

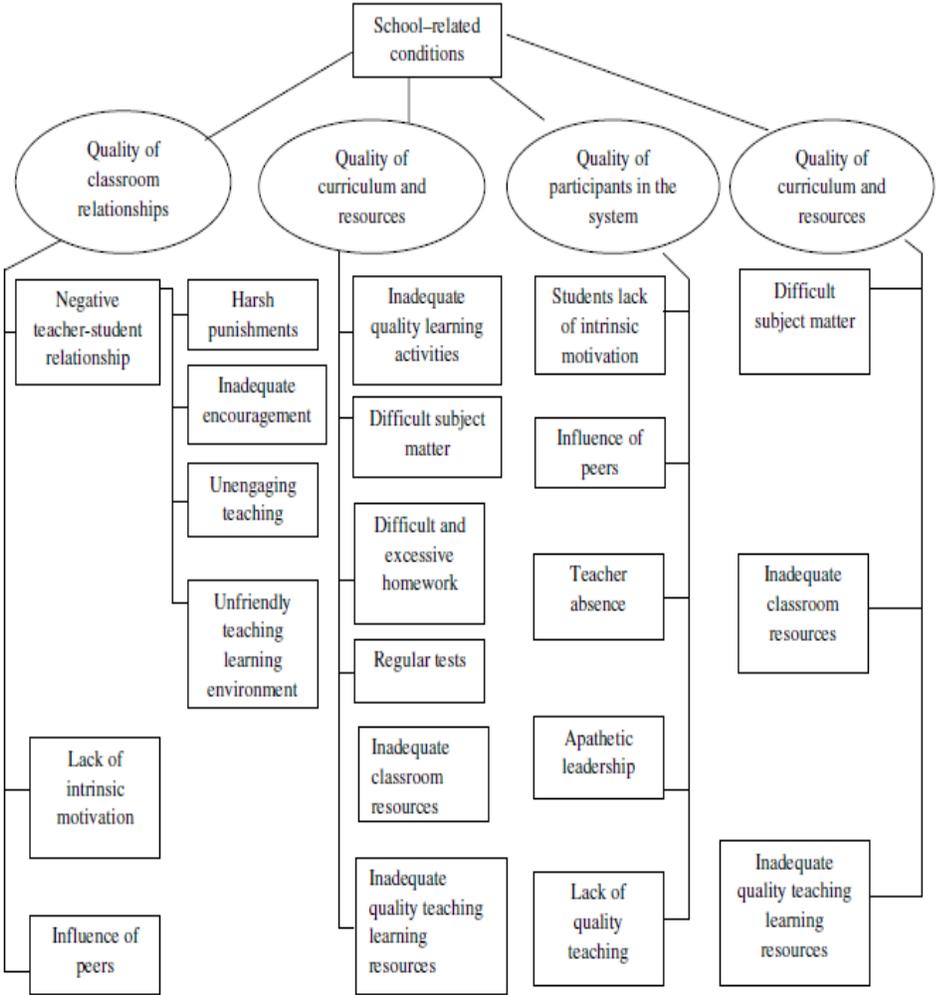


**Figure 3.1: Initial thematic map**  
(part 2)

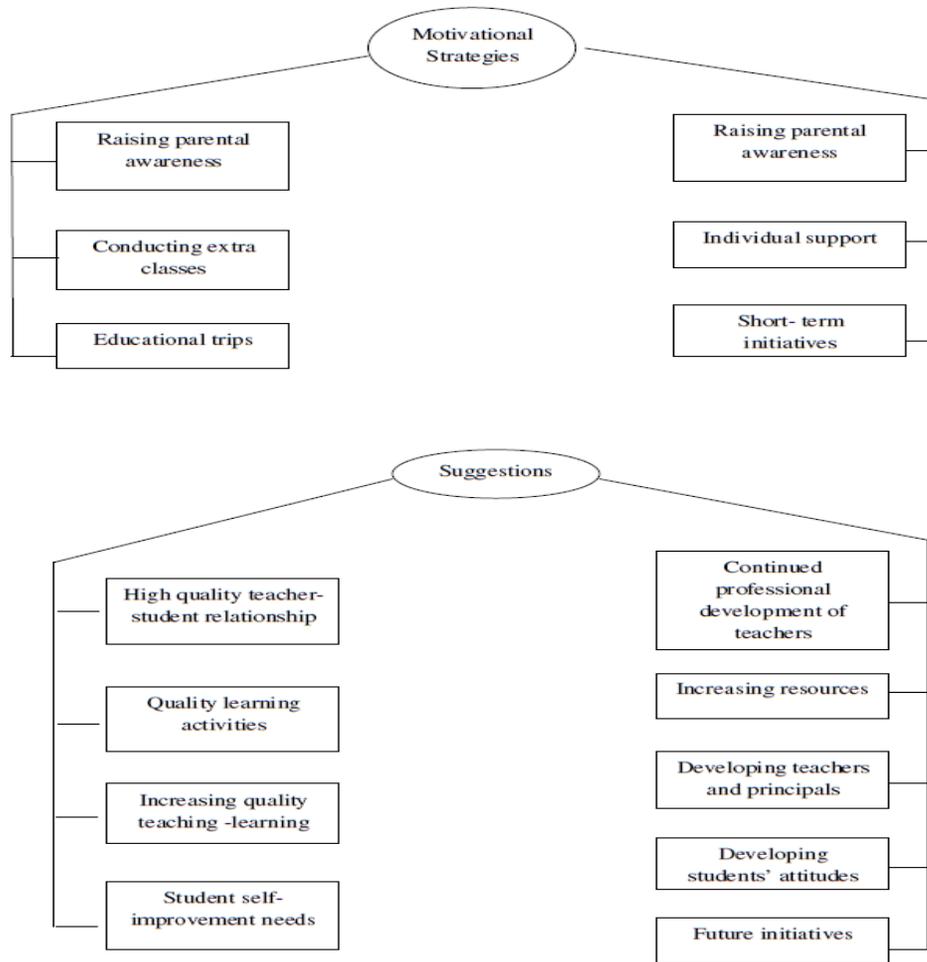
### **Stage 5: Defining and naming themes**

Stage five starts when the researcher has an acceptable thematic map of the data (Braun & Clarke, 2006). At this point the researcher recognises the spirit of every theme and decides what section of the data each theme is represented by. Although the researcher had already given working titles to the themes, in this stage the researcher reflected further on the themes and ensured they were concise, rich and coherent, and presented a worthwhile image of leading patterns in the data that deal with the research questions.

As discussed in the section 3.10.3, Creswell (2007) argued that the way to ensure the trustworthiness of qualitative analysis procedures is to ask others to inspect the data. These could be colleagues who are well versed in qualitative research and also the subject area of the research, or they could be external auditors, persons not allied with the research who evaluate the database and the qualitative outcomes employing their own measures. To this end, the researcher validated the resulting themes and the coded extracts for each sub-theme by discussing them with two colleagues who had expertise in qualitative data analysis. After stages 4 and 5, the thematic map evolved to the final map as presented in Figure 3.2.



**Figure 3.2: Final thematic map**  
(part 1)



**Figure 3.2. Final thematic map**  
(part 2)

### **Stage 6: Producing the final report**

After a set of themes and their sub-themes are identified and finalised, the last stage comprises creating the final report. Braun and Clarke (2006) suggest that the final report should offer a logical, brief, non-repetitive, reasonable and fascinating explanation of the data shows among and inside themes. They also suggest that extracts need to be fixed in a logical way that offers the narrative the researcher is telling about the data, and the logical description should go further than explanation of the data and ultimately produce an argument according to the research questions.

The themes identified through the above process will be discussed in Chapter 5- Qualitative data analysis and findings.

### **3.10 Establishing the validity and trustworthiness of the research**

Cohen et al. (2011) argued that one of the significant inputs to successful research is its validity and trustworthiness; these are necessary for both quantitative and qualitative research. In quantitative research, validity may be improved via cautious sampling, suitable tools and statistical analysis of data. Winter (2000) noted that qualitative data validity may be gained by the sincerity, depth, richness and range of the data collected, by the approach of the participants, the amount of triangulation, and the impartiality or independence of the researcher. The procedures taken to enhance the validity and trustworthiness of this research in both phases are reported in the following sections.

#### **3.10.1 Quantitative data validity procedures**

In quantitative research, validity requires the researcher to be able to illustrate significant conclusions from the results of a population (Creswell & Plano Clark, 2007). Moreover, Creswell and Plano Clark (2011) advise that investigators establish the validity of their tools through content validity and their scores using criterion-related validity together with construct validity procedures to evaluate the validity of a study.

##### **3.10.1.1 Content validity procedures: Piloting the scale**

In this study, the quantitative data were collected using the MES-JS. Because this scale was originally developed using Australian students, its validity for use with Sri Lankan students needed to be verified. Because this study was conducted with both Sinhala and Tamil-medium students, the scale was translated into both languages. Therefore, it was essential to confirm the accuracy of the scale. Williamson and Johanson (2013) state it is essential to examine the questionnaire with representative participants who can make the researcher aware of doubts and other issues, and possibly propose improved wording. It is particularly helpful to have a conversation about the questions that participants have raised.

Therefore, to pilot the scale, the final drafts of both Sinhala-medium and Tamil-medium questionnaires were administered in two schools, one from each Sinhala-medium and Tamil-medium school located in the Colombo and Kalutara district in the Western Province in Sri Lanka, which had been showing low achievement levels for years (see Table I.1 in Appendix I). It should be noted that the two schools chosen for the pilot study were not located in the districts chosen for the current study. They were selected from low socio-economic areas in other districts which had similar characteristics to the two schools. From each school, 10 students (5 male and 5 female) were chosen; that is, the whole pilot study comprised 10 male and 10 female students (20 altogether).

The initial reaction of all students was that the questionnaire was too lengthy. Since, the questionnaire had already been developed; the length of the questionnaire could not be adjusted. Working with this feedback, however, students in the study were informed beforehand that the questionnaire was long. Further medium students' suggestions also resulted in the wording of three statements in the original scale were, with the approval of the supervisory team, amended to suit the Sri Lankan context. One item on the scale use the word "week" and this was changed to "term" (item 8). A second amendment involved changing "project/s" to "assignments" where it occurred in four items (items 10, 19, 27 and 30). Lastly, in one item the word "dumb" was used and based on the students' responses this was changed to "stupid" (item 11) (see Appendix Q for modifications to the scale). None of these adjustments, however, were deemed significant modification to the original scale.

### **Translating the scale**

The original scale was translated from English to Sinhala and Tamil languages. Rode (2005) notes that questions or items can have rather dissimilar meanings in a translated instrument, thereby compromising the validity and reliability. Furthermore, questions which are appropriate for some settings may be less suitable in other settings. As described by Smith (2003), one of the most persistent issues is that hidden meanings could be missing in translation. Some terms have particular significant meanings in some countries and not in other countries. Certain connotations can also have an influence on the meaning of questions or items.

Keeping in mind the above concerns in translating the MES-JS into a totally different cultural context, the researcher used a committee approach for translating the scale, taking into account the current advise that work is translated in a step-by-step process by a diverse group or committee with the appropriate expertise (Harkness, 2003). Harkness (2003) proposed a method named TRAPD (translation, review, adjudication, pre-testing, and documentation) as the most comprehensive method. In this study the researcher used a translation team who followed the suggested TRAPD method. The team consisted of two translators, one reviewer and one adjudicator.

The researcher gave the scale to one university lecturer to translate into Sinhala and the researcher also translated it into Sinhala. For the Tamil translation, the researcher gave the scale to two Tamil lecturers at the Open University of Sri Lanka. It should be noted that all of these translators had expertise in Educational Psychology. Then, those two original translations were reviewed by one Sinhalese professor and one Tamil professor at the Open University of Sri Lanka. Upon their suggestions, some modifications were made. The Sinhala scale was then certified by a native Sinhala-speaking lecturer at the University of New England and Tamil scale was certified by a native Tamil-speaking lecturer at the Open University of Sri Lanka. They both worked as adjudicators as well as certifiers. Those two adjudicators were accountable for the conclusions on the diverse translation alternatives. The entire procedure was recorded, and the translated questionnaires were pre-tested in the pilot study. Finally the researcher ensured, through students' responses, that the translations in both languages were correct and clearly understood.

### **3.10.1.2 Construct validity procedures**

Martin (2010) created and advanced the MES-JS (Martin, 2014) to reflect a variety of theoretical models and parallel instruments to better support educators and counsellors in their efforts to identify a range of aspects of motivation and to create interventions to target multiple proportions of motivation. In testing the validity and reliability of the tool, Martin (2007, 2009) conducted a range of studies.

In his 2007 study, Martin examined employing within and between networks to construct validation procedures, and a multidimensional model of motivation and engagement of students. In accordance with Martin (2007), the study gained data from 38 Australian

secondary schools and 12,237 secondary school students. It was proposed that the 11-factor first-order and the four-factor higher-order structures, their association with a set of between-network measures (class contribution, satisfaction of school, learning ambitions), factor invariance among gender and year-level, and the effects of age and gender be investigated using CFA and structural equation modelling.

Martin conducted another study (2009) of the survey instrument examining motivation and engagement from a developmental construct validity viewpoint among primary school, high school and university/college by thorough concentration on the MES. His findings confirmed developmental construct validity among the three separate educational steps in relation to good-fitting first- and higher-order factors, factor structure invariance among gender and age, and a system of correlations with related constructs consistent with forecasts. Thus, this scale is a validated instrument to measure motivation and engagement in learning.

Although the MES-JS has been used in different contexts to validate the scale in the Sri Lankan context, CFA was employed by the researcher. As argued by Cohen et al. (2011), CFA is more rigorous, examining an established set of factors in opposition to a hypothesised model. The details of the CFA procedures are discussed in Chapter 4: Quantitative data analysis, findings and discussion.

### **3.10.2 Quantitative data reliability procedures**

Cronbach's  $\alpha$  is probably the most frequently employed test for scale reliability (Blaikie, 2003). It was introduced by Lee Cronbach in 1951 to evaluate the internal consistency of a test or questionnaire. It is articulated as a numeral between 0 and 1. Internal consistency explains the level to which whole items in a test represent a similar idea or construct and, therefore, it is linked with the inter-relatedness of the items in the questionnaire (Tavakol & Dennick, 2011).

In this research, Cronbach's  $\alpha$  was calculated to determine the internal consistency of the scale in relation to the MES- scores. The process of measuring reliability of the scale (after conducting EFA) is discussed in detail in Chapter 4.

### **3.10.3 Qualitative data trustworthiness procedures**

Guba and Lincoln (1994) stated there are four indicators to determine validity and reliability in a qualitative study: credibility, transferability, dependability, and confirmability. Suter (2012) further argued that the idea of credibility in qualitative research is similar to the concept of internal validity employed in quantitative research. Further Suter emphasised that credibility is also linked with the believability of the results and improved by verification. Moreover, Gay et al. (2012) explained that, in terms of credibility, researchers have to think and concentrate on a variety of complications in the study conducted that are difficult to clarify.

Suter (2012) explained that transferability is concerned with the evidence-supporting generalisation of results to other settings among diverse participants, groups, conditions and so on. Further transferability is comparative, wanting a researcher to comprise context-relevant declarations so the reader can recognise the construct and decide whether the results from one setting are appropriate for another setting (Gay et al., 2012). Lodico, Spaulding, and Voegtler (2010) argued that dependability in qualitative research refers to a condition in which the researcher can recognise procedures used to collect and explain data and provide proof to justify claims that if the study is to be carried out again similar results would be attained.

However Suter (2012) stated that, because people continuously change thoughts and the social world evolves, even if the study were to be conducted at another time with the same members, it would turn out to be a novel study. Thus, dependability can be improved by using audit trails, rich documents, triangulation and data appraisal from other researchers (Lodico et al., 2010). Suter (2012) also suggests that by conducting a peer review and confirmability audit, confirmability can be improved.

Taking into consideration the factors discussed above, a number of procedures were undertaken to enhance the trustworthiness of this research. As suggested by Cohen et al. (2011), triangulation was used; this is the procedure of using two or more techniques of data collection to discover some aspect of human actions, or employing numerous data collection approaches, and data sources to get a more absolute image of what is being

researched in order to cross-check information (Gay et al., 2012). In this study, therefore, to sustain the trustworthiness of the research, qualitative data were drawn from different groups: students, teachers, and principals.

As affirmed by many researchers (Barbour, 2001; Doyle, 2007), member checking is usually employed in qualitative research methodology and is described as a quality control procedure. Using member checking procedures, the researcher aims to develop the correctness, trustworthiness and validity of what has been documented in a research interview. Member checking is a commonly used method in which the researcher presents the results back to the main members in the study and invites them to check whether the results are an accurate interpretation of their contribution (Creswell & Plano Clark, 2011).

In this research, the researcher repeated the information given by the students and confirmed with the members whether the explanation was accurate. The researcher personally conducted this procedure with the Sinhala-medium students, teachers, and principals and the Tamil-medium teachers and principals. In the case of the Tamil-medium students, the word interpreter read the interpretations out loud on behalf of the researcher and made sure those were accurate. From the feedback provided by the participants, it was found that the interpretation, major themes identified, and the information provided by the researcher was an accurate reflection of participants' experiences.

Creswell (2007) argued that another qualitative data trustworthiness procedures is to invite other persons to inspect the data. Other persons might be peers, who are well versed in both qualitative research and the subject of the particular research, or external auditors, persons not related with the project who evaluate the database and the qualitative findings on their own standards. In this study, the themes that emerged from the thematic analysis were reviewed by two colleagues who had expertise in qualitative data analysis. Further detailed records of data collection were taken to enhance the trustworthiness of this research.

### **3.11 Ethical considerations of the research**

Cohen et al. (2011) argues that research is morally responsive. Therefore, numerous factors need to be considered and these might differ from situation to situation. Some factors to consider are the age of those being investigated, whether the area of the research is a sensitive area, whether the goals of the research are disruptive in any form, the amount the researcher and researched can contribute and work together in setting up the research, and the way the data are to be processed, interpreted and employed.

This research was passed by the Human Research Ethics Committee at the University of New England with the approval number HE15-233 (see Appendix R). After obtaining ethics approval, the Provincial Departments of Education approval letters were obtained to conduct the study in the chosen schools (see Appendix S). To assure confidentiality in this research, the participants (children, teachers and principals and parents) were informed through the information sheets (see Appendices T, U, and V for information sheets in all three media). They were guaranteed that data collected from participants was to be kept secret and utilised for the purpose of the research only. Participants of the study were also made aware that data collected in the study would be used in the PhD thesis, and in publications and conference presentations.

Participation was voluntary and participants signed a document giving their informed consent. Obtaining informed consent is not simply about signing document: it is a procedure in which the participants gain an understanding of the study and the risks associated with participating in it. Informed consent from participants is necessary prior to starting the study and continues throughout the study. Gaining consent involves notifying the subject about their rights, the aim of the research, the actions to be undertaken, and the possible risks and advantages of contributing to the study (Rose, 2013). Therefore, consent from teachers and principals were also obtained (see Appendix W for consent form in all media). Further, assent forms from children were also obtained (see Appendix X for assent form in all media). As advised by Cohen et al. (2011), seeking informed consent from young people engages two stages. First, researchers discuss with and look for consent from those adults in charge and, second, the researchers approach the minors themselves. As the students who were involved in this research were under 18

years old, parents' consent (see Appendix Y for consent form in all media) was also obtained.

Those involved in interviews were informed that pseudonyms would be employed in the data, which would be presented in publications and presentations. To ensure the participants' confidentiality, data collected were held on the school premises. To minimise inconvenience to participants, times and dates of meetings were prearranged. When obtaining informed consent, the participants were informed of their right to refuse to be involved.

### **3.12 Methodological limitations of the research**

Under this section, the methodological restrictions that emerged from the study will be briefly discussed and further considered in detail in Chapter 6.

The sample of students for this research was drawn from two rural low socio-economic districts in Sri Lanka, and the findings and generalisation of the research can only be applied to government Type 2 schools. The participants consisted of only grade-eight students who were in their early adolescence period and were studying in government schools. The research is also limited to investigating school-related conditions impacting motivation and engagement. Further, this research investigated the perceptions at one moment in time. It does not compare changes in perceptions, motivational levels, or academic performance.

As students are also one of the factors directly connected to the school, students' lack of motivation was also categorised under school-related conditions impacting students' motivation and engagement in learning. In relation to CFA, a poor-model fit was gained in relation to current study sample. One of the possible reasons for this situation may be the low sample size. The sample chosen for the current study was 220.

Although this research began with an assumption that there would be low motivation and engagement in the low socio-economic districts in Sri Lanka, the quantitative aspect of the study indicated that, in general, this was not actually the problem. However, there were

significant differences between sub-samples. Therefore, in the follow-up explanation was limited only to least motivated and engaged students (24) in the sample.

### **3.13 Discussion and summary**

This chapter described the main research paradigms in education research and justified situating this study within the pragmatic paradigm and employing a mixed methods methodology. The research methods and the research design, namely, the explanatory sequential mixed methods research design was discussed next. This was followed by discussion of participants sampling, and the data collection process were. Then, data analysis of the research: quantitative and qualitative analyses were examined. The next section of this chapter considered validity and trustworthiness of the research and then ethical considerations. The last part of this chapter examined the methodological limitations of this research.

In the next chapter, quantitative data analysis will be discussed.

# CHAPTER 4: QUANTITATIVE DATA ANALYSIS, FINDINGS, AND DISCUSSION

## 4.1 Introduction

This chapter is in two sections, both dealing with quantitative data analysis derived from the MES-JS questionnaire: (1) psychometric properties and descriptive statistics and (2) inferential statistics. In the first section, suitability of the current data set for analysis using the factor structure identified by Martin (2014) will be examined using CFA. Then, the final factor solution, developed using EFA will be discussed followed by a presentation of the descriptive statistics.

In the second section, inferential statistics will be examined: the results of parametric methods employed in this study, namely, *t*-tests, two-way MANOVA followed up by two-way ANOVA, one-way ANOVA, and non-parametric methods employed, and the Kruskal-Wallis *H* test, will be discussed.

## 4.2 Conducting confirmatory factor analysis

The first research question is: How can student engagement and motivation be measured for junior secondary students in low socio-economic schools in Sri Lanka? This section, aims to answer that research question.

The MES-JS instrument was used to gather data, but, as explained in Chapter 3, there were questions about the fit of the instrument to the Sri Lankan context. Thus, before conducting a factor analysis, the questionnaire data was screened, as described in section 3.9.1. Psychometric property assessment is an important element in quantitative research development, particularly where existing surveys and questionnaires are applied in different socio-cultural contexts. As discussed in the methodology chapter, this research paid particular attention to the importance of construct validity

The MES-JS has 11 second-order factors (self-belief, valuing, learning focus, planning, task management, persistence, anxiety, failure avoidance, uncertain control, self-sabotage, and disengagement) and four first-order factors (positive motivation (PM), positive

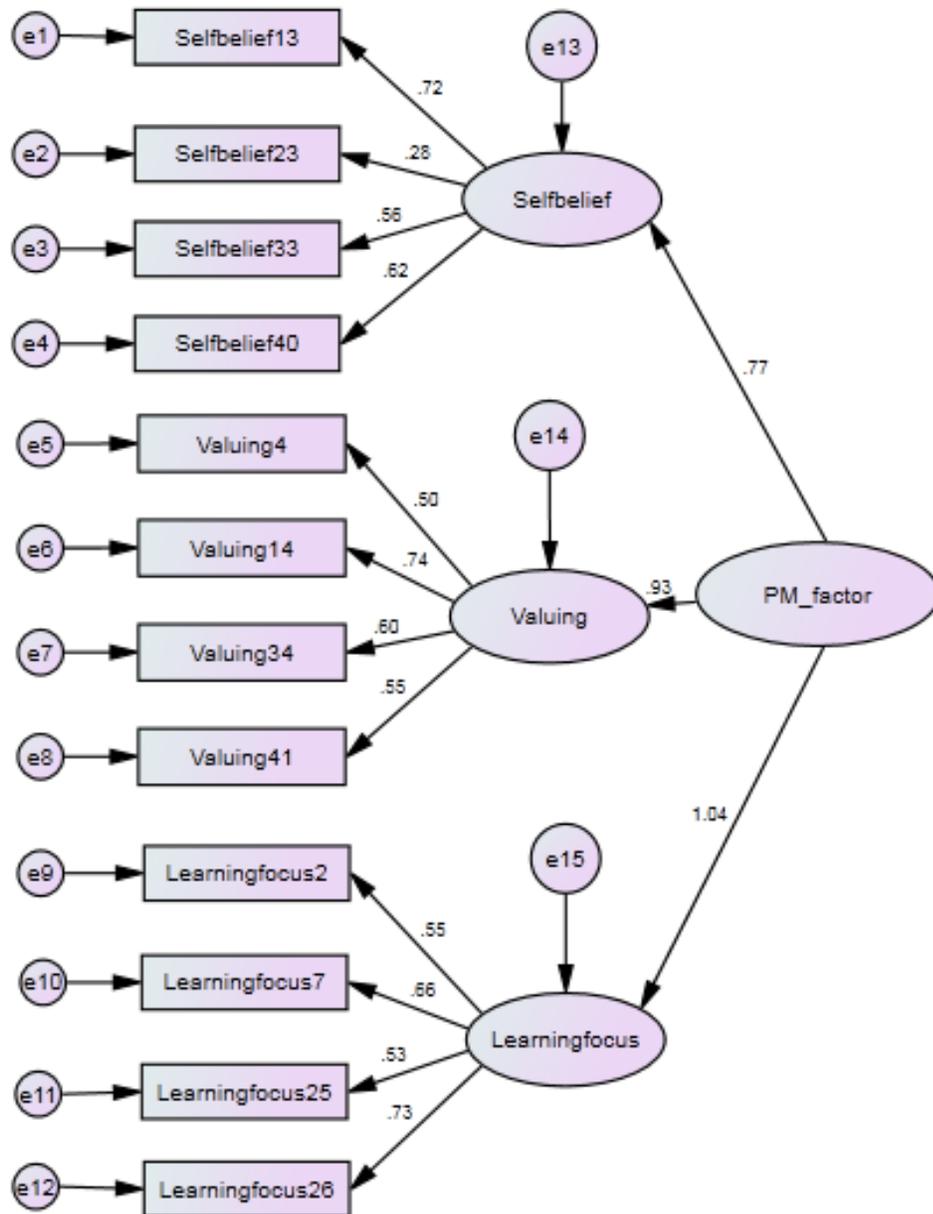
engagement (PE), negative motivation (NM), and negative engagement (NE)). The CFA was conducted for the model based on those lower order and higher order factors using the statistical software package SPSS-Amos 24. It should be noted that CFA was conducted for the full sample, and it was not conducted for the two cultural groups as the sample size was not adequate.

Determination of a model fit is made by examining the standardised regression weights, which should be a minimum of 0.5 (Hair, Anderson, Tatham, & Black, 2006) and an assessment of the minimum threshold values of the different goodness-of-fit index values available (Hooper, Coughlan, & Mullen, 2008). The tests and threshold values used are shown in Table 4.1.

**Table 4.1: Tests and goodness of fit requirements for survey CFA**

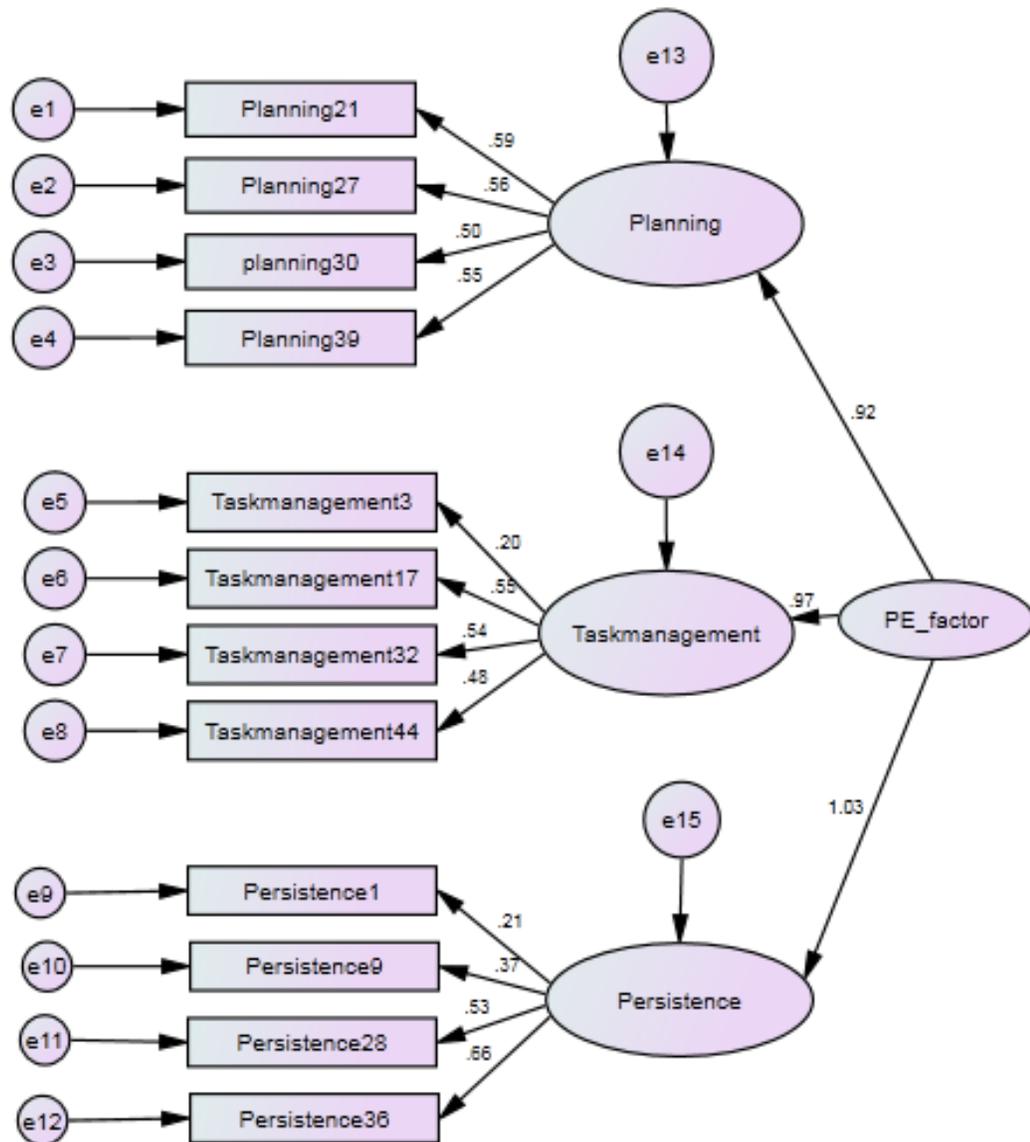
<b>Goodness of Fit Test</b>	<b>Threshold Value</b>
Ratio between chi-squared and degree of freedom ( $\chi^2 / df$ )	~ 2.0
Comparative Fit Index (CFI)	0.90
Tucker-Lewis Index (TLI)	0.90
Root mean square error of approximation (RMSEA)	0.80
Standardised root mean square residual (SRMR)	0.06

The PM factor model is illustrated in Figure 4.1 and shows a poor model fit, as indicated by the following goodness-of-fit index values:  $\chi^2 / df = 4.14$ , CFI = .79, TLI = .73, RMSEA = .120, and SRMR = .001. Also, a considerable number of the regression weights for individual items were lower than or close to the expected 0.5 threshold.



**Figure 4.1: PM factor model**

The PE factor model is illustrated in Figure 4.2. The factor showed a poor model fit, as indicated by the following goodness-of-fit index values:  $\chi^2 / df = 1.82$ , CFI = .89, TLI = .86, RMSEA = .061, and SRMR = .164. Also, four items demonstrated regression weights lower than the expected threshold level.



**Figure 4.2: PE Factor model**

The NM factor model is illustrated in Figure 4.3. The factor showed poor model fit, as indicated by the following goodness-of-fit index values:  $\chi^2/df= 2.83$ , CFI= .81, TLI= .76, RMSEA= .092, and SRMR =.001. Also, five items demonstrated regression weights lower than the expected level.

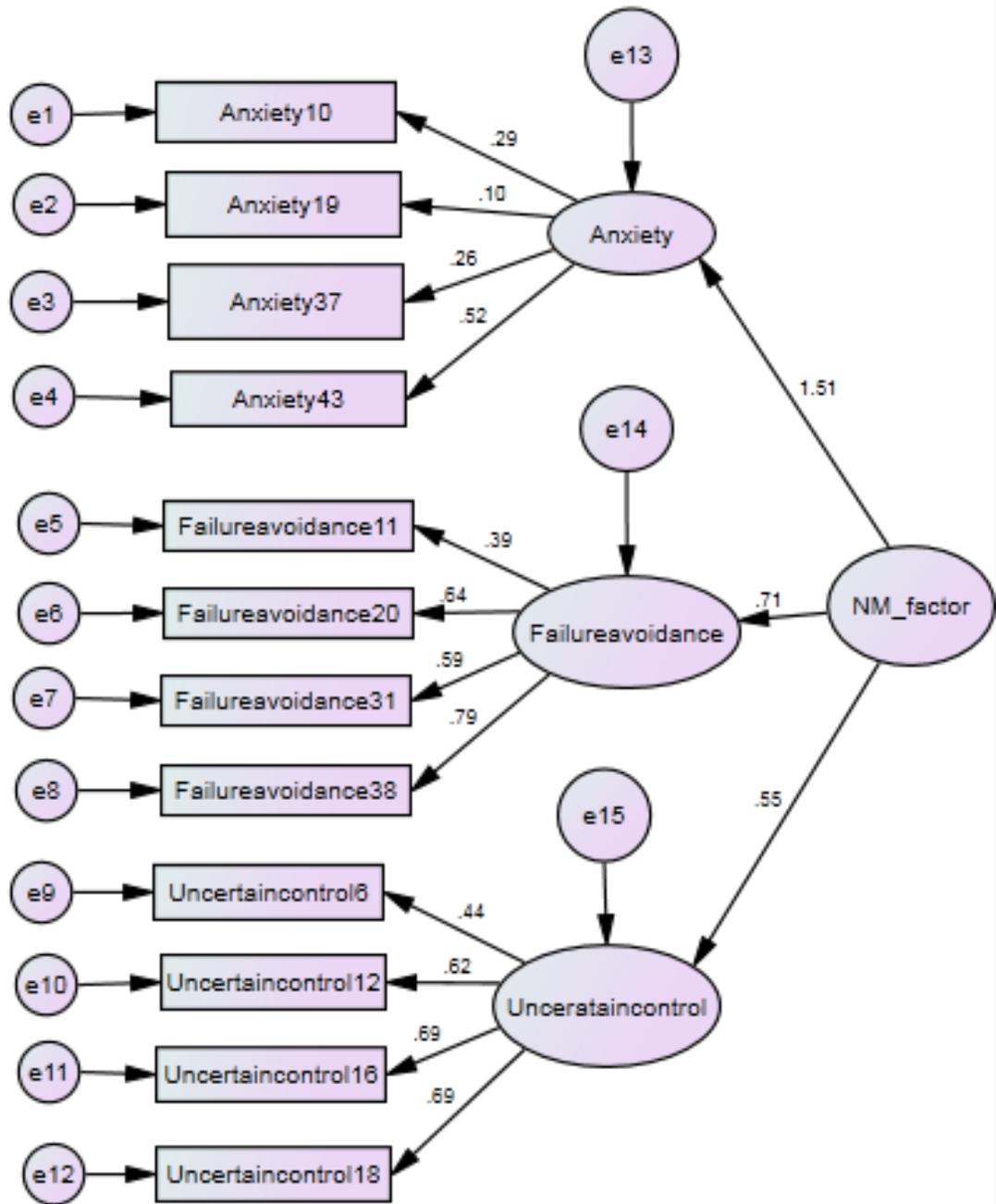


Figure 4.3: NM factor model

The NE factor model is illustrated in Figure 4.4. The factor showed a poor model fit, as indicated by the following goodness-of-fit index values:  $\chi^2 / df = 1.47$ , CFI = .96, TLI = .95,

RMSEA= .047, and SRMR =.524. Also, three items demonstrated regression weights lower than the expected 0.5 level.

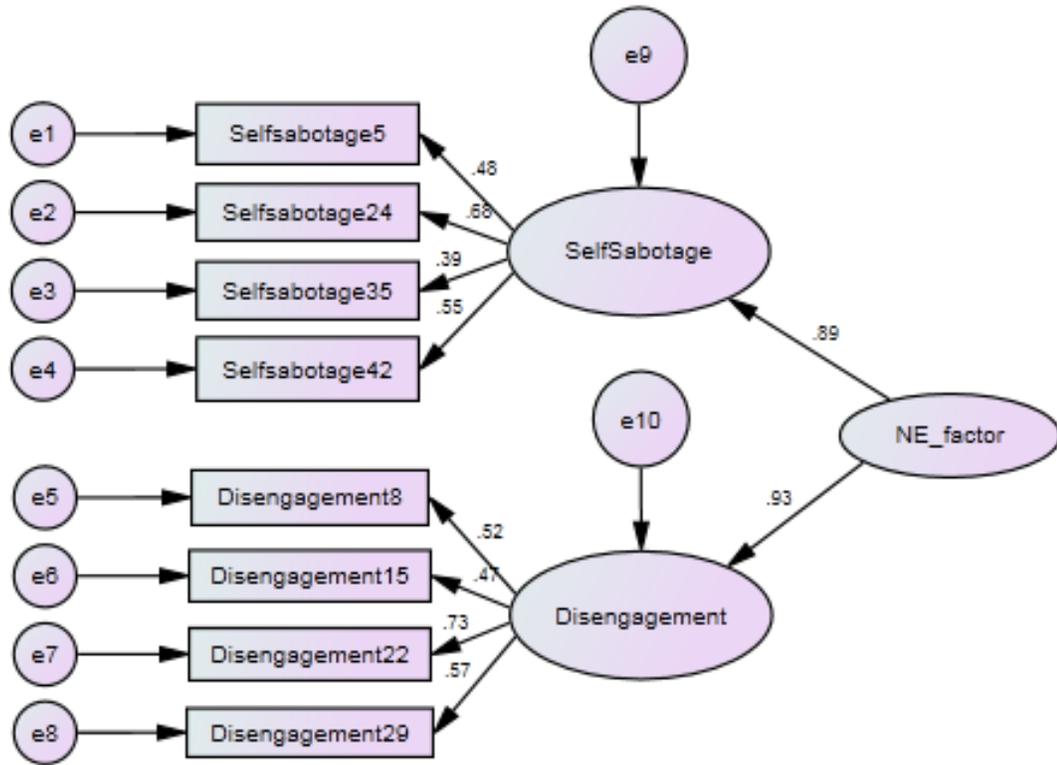


Figure 4.4: NE factor model

All the goodness-of-fit index values for all the factors are summarised in Table 4.2.

Table 4.2: Goodness-of-fit index values for higher order factors of MES-JS

Factor	$\chi^2$	df	$\chi^2 / df$	CFI	TLI	RMSEA	SRMR
PM	211.49	51	.14	0.79	0.73	0.12	0.001
PE	93.13	51	1.82	0.89	0.86	0.061	0.164
NM	144.61	51	2.83	0.81	0.76	0.092	.001
NE	28.04	19	1.47	0.96	0.95	0.047	.524

As noted above, the goodness-of-fit index values for all factors in MES-JS did not show a good fit with the current study sample. Also, a considerable number of the regression weights for individual items were lower than the expected level for all the factors.

The conclusion is that Martin's (2014) data structure was not appropriate for use in this study. It was, therefore, decided to conduct an EFA for the current sample to obtain a robust factor solution. As already noted, the EFA was conducted for the full sample and not for each of the two cultural groups because the sample size of each group was not big enough.

### **4.3 Conducting exploratory factor analysis**

Before conducting the EFA, several factors were considered to develop decision pathways for analysing the data: sample size, sample size to variable ratio ( $N:p$  ratio), factorability of the correlation matrix, and the Kaiser-Meyer-Olkin measure of sampling adequacy/Bartlett's Test of Sphericity.

#### **Sample size**

Sample size is significant in factor analysis. However, there are different views, and numerous rules of thumb mentioned in the literature (Williams, Onsman, & Brown, 2010). In general, researchers need to be mindful that EFA is a large-sample procedure. Tabachnick and Fidell (2007) provided a rule of thumb that suggests at least 300 cases should be used for conducting EFA. This study sample violates that rule of thumb. But, Comrey and Lee (1992) argue that a sample size of 100 is poor, 200 is fair, 300 is good, 500 is very good and 1000 or more is excellent: the sample in this study, therefore, can be classified as fair for factor analysis.

Williams et al. (2010) advise that the sample to variable ratio should be employed to determine how many participants are required for each variable; indicated as the  $N:p$  ratio:  $N$  = the number of participants and  $p$  = the number of variables. Rules of thumb vary from 3:1 - 20:1. In this study the ratio was 13:1, which is an acceptable level for conducting factor analysis.

### **Factorability of the correlation matrix**

A correlation matrix was used in the EFA process to analyse the relationships between individual variables. Hair, Anderson, Tatham, and Black (1995) and Tabachnick and Fidell (2007) advise that the researcher should consider whether factor analysis is the appropriate technique to employ if no correlations go beyond 0.30. An initial step taken in this study was to examine the correlation matrix for all items to determine the suitability of items for inclusion in the EFA.

### **Kaiser-Meyer-Olkin Measure of Sampling Adequacy/Bartlett's Test of Sphericity**

Before extracting the factors, numerous tests should be employed to evaluate the appropriateness of the data for factor analysis (Williams et al., 2010). These tests include the Kaiser-Meyer-Olkin (KMO) Measure of sampling Adequacy/Bartlett's Test of Sphericity. The KMO ratio ranges from 0-1, with 0.50 regarded appropriate for factor analysis (Hair et al., 2010; Tabachnick & Fidell, 2007). Therefore, those tests were considered when conducting EFA.

Using these procedures, the current sample was deemed suitable for conducting EFA. The following sections will discuss the procedures used to conduct the EFA.

### **4.3.1 Method of data extraction**

Many methods can be employed to estimate the factor model, including principal components analysis (PCA), maximum likelihood, principal axis factoring, weighted least squares, unweighted least squares, generalised least squares, imaging analysis, minimum residual analysis, and alpha factoring (Brown, 2006; Costello & Osborne, 2005, Kline, 1994). Thompson (2004) argued that PCA is the default method in many statistical programmes and, therefore, is the most frequently employed in EFA. Pett et al. (2003) recommended employing PCA as a basic solution for EFA. Abdi and Williams (2010) argue that PCA is possibly the most popular multivariate statistical technique; it is employed in almost all disciplines.

Mvududu and Sink (2013) explained that PCA is the most practical way of extracting components. Its main goal is to condense a large number of items (e.g. 40) to a far smaller number of components (e.g. 4). Similarly, Abdi and Williams (2010) noted that the

objectives of PCA are to extract the most significant information from the data table, and condense the size of the dataset by keeping only significant information, thereby simplifying the description of the dataset. Cooksey (2014) explained that PCA merges variables in a subjective way to create components, and those components account for the maximum amount of variability in the scores. Kline (1994) argued that components are actual factors because they are obtained directly from the correlation matrix.

This study used the PCA method of extraction to determine the final factor solution.

### **4.3.2 Rotation**

Yong and Pearce (2013) advise rotation of factors for better interpretation and, further, argue that un-rotated factors are unreliable. Orthogonal rotations highlight uncorrelated factor, while oblique methods permit the factors to be correlated. Varimax, quartimax, and equamax are usually obtainable orthogonal methods of rotation; oblique methods are direct oblimin, quartimin, and promax (Osborne & Costello, 2009). Correlations between factors are predictors in the social sciences: if the factors are correlated, orthogonal rotation results might reveal important information and oblique rotation might present a more precise result (Costello & Osborne, 2005). According to Brown (2006):

[O]nce the appropriate number of factors has been determined; the extracted factors are rotated to foster their interpretability. In instances when two or more factors are involved, rotation is relevant because of the indeterminate nature of the common factor model – that is, for any given multiple-factor model, there exists an infinite number of equally good-fitting solutions, each represented by a different factor loading matrix. (p. 27)

Schlechty (2001) tried to recognise the influence on student learning of the connection between motivation and engagement. A student who is amotivated, might also be unengaged and a student who is intrinsically motivated might also be genuinely engaged (Ryan & Deci, 2000a, 2009; Schlechty, 2001). The link (correlation) between motivation and engagement is discussed in detail in section 2.4. Therefore, for this study, the direct oblique rotation method was employed.

### **4.3.3 Number of factors to retain**

According to Hinkin, Tracey, and Enz (1997), the number of factors to be kept relies on both the underlying theory and empirical outcomes. Brown (2006) argued that factor loadings larger than or equivalent to 0.3 or 0.4 are frequently interpreted as significant in applied research. Similarly, Kline (1994) suggested that loadings of 0.3 or greater are considered significant. In addition, Osborne and Costello (2009) described how, after using rotation, the item loading tables to be observed have the “cleanest” factor structure. In that regard, the best fit to the data is considered as item loadings over 0.30, no or a small number of item cross loadings, and no factors with less than three items. Therefore, for the current study, a cut-off point of 0.5 for factor loadings was used as the threshold (Norzaidi, Chong, Murali, & Salwani, 2009). This higher standard was set to improve the robustness of the factor solution.

It is important to select which criterion is most suitable for the study when deciding on the number of factors to be extracted. There are many heuristic devices for helping to decide on the number of factors to retain. Among them, for this study, two devices were employed, eigenvalue and scree test. Kaiser (1960) advocated that a criterion (Kaiser’s criterion) that could be employed to decide the number of factors to retain is those with an eigenvalue greater than 1. However, as argued by Child (2006), an eigenvalue is only suitable for utilisation in PCA. Only factors having an eigenvalue larger than 1 are regarded as common factors.

In relation to the scree plot, the number of factors to be retained is interpreted as the number of data points that are above the break (point of inflection), although some authors argue for retention of the factor at the inflection point. Kline (1994) advocates for the cut-off point for factor rotation at the point where line changes slope. The scree test is reliable if the sample size is at least 200 (Osborne & Costello, 2009; Yong & Pearce, 2013), which was available in the current study. In this study, the method used was the scree test in combination with eigenvalues to decide the number of factors to retain.

## 4.4 Exploratory factor analysis outcomes

The correlation matrix was examined and items were excluded from the analysis where they demonstrated limited (less than 0.30) inter-item correlations; 16 items were retained and included in the EFA. In this study, the KMO ratio was .754, indicating the size of the dataset was suitable for factor analysis. The Bartlett's test of sphericity was significant (Chi-square (105) = 887.54,  $p=.001$ ) indicating that the items, as a collective, were suitable for factor analysis. The communalities items in the EFA ranged from .494 to .708 (see Table 4.3) indicating a suitable variance in the items by the factors with an eigenvalue greater than 1.

**Table 4.3: PCA extraction method – communalities**

Items	Initial	Extraction
2.I feel very happy with myself when I really understand what I'm taught at school	1.000	.542
4.I'm able to use some of the things I learn at school in other parts of my life	1.000	.551
7.I feel very happy with myself when I do well at school by working hard	1.000	.682
14.Learning at school is important	1.000	.599
16.When I get a bad mark I don't know how to stop that happening next time	1.000	.624
17.When I do homework, I get organised so I can do it well	1.000	.509
18.I don't know how to get good marks at school	1.000	.675
20.The main reason I try at school is because I don't want people to think bad things about me	1.000	.571
30.I have a plan for how to do my homework or assignments when I start them	1.000	.569
31.The main reason I try at school is because I don't want to disappoint my parents	1.000	.577
32.When I do homework, I try to find a place where I can do it well	1.000	.494
36.I'll keep working at difficult schoolwork until I've worked it out	1.000	.589
38.The main reason I try at school is because I don't want my teacher to think bad things about me	1.000	.708
43.I worry about school and schoolwork	1.000	.582
12.When I get a good mark I often don't know how I'm going to get that mark again	1.000	.586

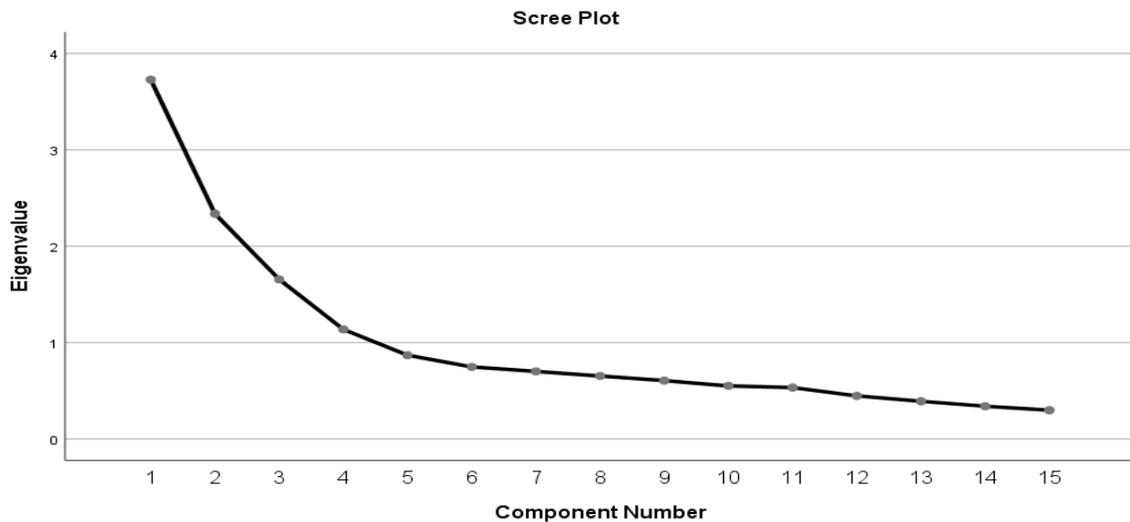
An examination of the eigenvalues (Table 4.4) and scree plot (Figure 4.5) indicated a four-factor solution.

**Table 4.4: Total variance explained**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings <sup>a</sup>
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	3.728	24.853	24.853	3.728	24.853	24.853	2.789
2	2.336	15.576	40.429	2.336	15.576	40.429	2.696
3	1.656	11.041	51.471	1.656	11.041	51.471	2.098
4	1.137	7.582	59.053	1.137	7.582	59.053	2.555
5	.870	5.798	64.850				
6	.748	4.987	69.837				
7	.701	4.676	74.513				
8	.654	4.360	78.874				
9	.606	4.039	82.913				
10	.551	3.674	86.586				
11	.534	3.558	90.144				
12	.448	2.985	93.129				
13	.392	2.611	95.740				
14	.340	2.267	98.007				
15	.299	1.993	100.000				

Extraction method: principal component analysis.

- a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

**Figure 4.5: PCA scree plot**

The pattern matrix for the four factors is shown in Table 4.5. The items in the four-factor solution demonstrated factor loadings between .601 and .823, while the four factors accounted for 59.05% of the total variance. In relation to the social sciences, the variance explained is usually as small as 50 to 60% (Pett et al., 2003).

**Table 4.5: Pattern matrix of four factors**

Item	Component			
	1	2	3	4
38.The main reason I try at school is because I don't want my teacher to think bad things about me	<b>.823</b>	-.072	.113	-.091
20.The main reason I try at school is because I don't want people to think bad things about me	<b>.767</b>	.093	-.031	-.005
43.I worry about school and schoolwork	<b>.725</b>	-.122	.097	-.037
31.The main reason I try at school is because I don't want to disappoint my parents	<b>.694</b>	.070	-.087	.204
7.I feel very happy with myself when I do well at school by working hard	-.057	<b>-.803</b>	.056	.076
4.I'm able to use some of the things I learn at school in other parts of my life	-.017	<b>-.770</b>	-.029	-.139
2.I feel very happy with myself when I really understand what I'm taught at school	-.046	<b>-.699</b>	-.038	.123
14.Learning at school is important	.199	<b>-.697</b>	-.050	.084
18.I don't know how to get good marks at school	.061	.126	<b>.800</b>	-.064
16.When I get a bad mark I don't know how to stop that happening next time	-.026	-.065	<b>.783</b>	.082
12.When I get a good mark I often don't know how I'm going to get that mark again	.043	.016	<b>.755</b>	.013
30.I have a plan for how to do my homework or assignments when I start them	.030	.208	-.058	<b>.774</b>
32.When I do homework, I try to find a place where I can do it well	-.052	-.112	.122	<b>.666</b>
36.I'll keep working at difficult schoolwork until I've worked it out	.105	-.152	-.170	<b>.662</b>
17.When I do homework, I get organised so I can do it well	.047	-.182	.156	<b>.601</b>

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

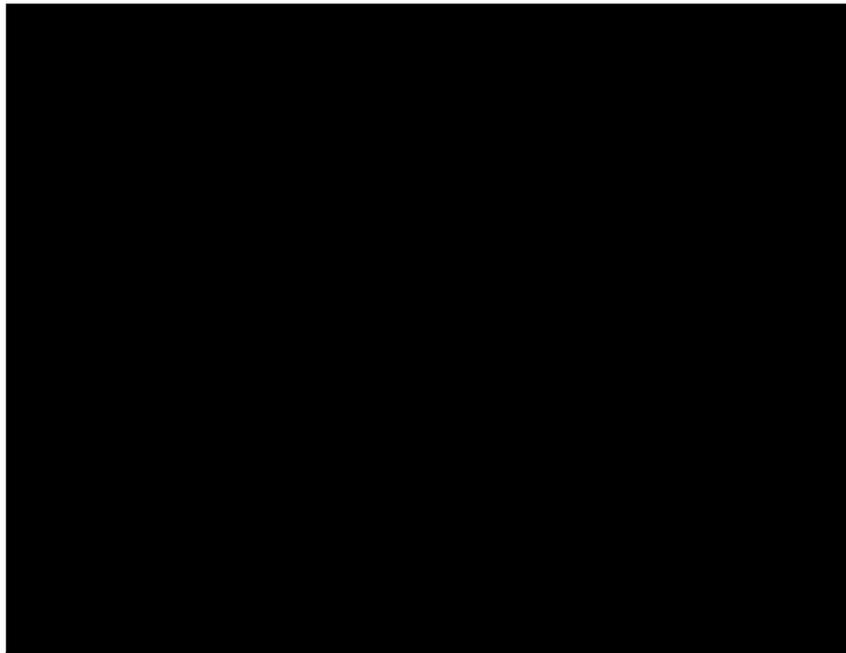
a. Rotation converged in 8 iterations.

The EFA analyses derived four factors in relation to early adolescents' motivation and engagement in learning in the Sri Lankan low socio-economic context. The new factors that emerged will be labelled in the next section.

#### 4.4.1 Naming the factors

Factor labelling is a subjective, theoretical, and inductive process (Pett et al., 2003). Henson and Roberts (2006) suggested that the meaningfulness of latent factors is eventually reliant on researcher definition. It is significant that the labels or settings reproduce the theoretical and conceptual aim (Williams et al., 2010).

For naming the factors, the theoretical basis of Martin's MES-JS was considered. In the MES-JS there are four higher order factors: positive motivation (booster thoughts), positive engagement (booster behaviours), negative motivation (mufflers), and negative engagement (guzzlers). Each higher order factor contains lower order factors: *positive motivation* – self-belief, valuing, and learning focus; *positive engagement* – planning, task management, and persistence; *negative motivation* – anxiety, failure avoidance, and uncertain control; and *negative engagement* – self-sabotage and disengagement (see Figure 4.6).



**Figure 4.6: Motivation and engagement wheel**  
(Adapted from Martin 2014a, p. 31).

In this study, factor one comprised three items related to “failure avoidance” and one item related to “anxiety”. Factor two comprised two items related to “learning focus” and two items related to “valuing”. Factor three consisted of three items related to “uncertain control”. The fourth factor contained one item related to “planning”, one item related to “persistence”, and two items related to “task management”. Accordingly, with an accurate and useful description of the underlying construct and with the theoretical meaning of the items in those factors, factor one was named as “Failure Avoidance and Anxiety” (FAA), as it represents two lower-order factors (failure avoidance and anxiety) in negative motivation. Factor two was named “Positive Motivation” (PM), as it represents two lower-order factors (valuing and learning focus) in positive motivation. The third factor was named “Uncertain Control” (UC), as it represented the majority of items in the uncertain control lower-order factor related to negative motivation. The fourth factor was named “Positive Engagement” (PE), as it represented all lower-order factors (planning, task management and persistence) in positive engagement. Overall, FAA and UC represent students’ negative motivation for learning, and PM and PE represent students’ positive motivation and engagement in learning in low socio-economic districts in Sri Lanka. Table 4.6 lists the items related to each lower-order factor in MES-JS and the current study.

**Table 4.6: Items related to each lower-order factor in MES-JS and the current study factor solution**

MES-JS Higher-order factors	MES-JS Lower-order factors	Items related to each MES- JS lower-order factor	Items retained In current study
Positive Motivation (Booster thoughts)	Self-belief	13,23,33,40	-
	Valuing	4,14,34,41	4,14
	Learning focus	2,7,25,26	2,7
Positive Engagement (Booster behaviours)	Planning	21,27,30,39	30
	Task management	3,17,32,44	17,32
	Persistence	1,9,28,36	36
Negative Motivation (Mufflers)	Anxiety	10,19,37,43	43
	Failure avoidance	11,20,31,38	20,31,38
	Uncertain control	6,12,16,18	12,16,18
Negative Engagement (Guzzlers)	Self-sabotage	5,24,35,42	-
	Disengagement	8,15,22,29	-

The final factor solution labelled using the new factor names and with their respective items is illustrated in Table 4.7.

**Table 4.7: Final four factor solution with factor labels**

Factor	Pattern Matrix	Component			
		1	2	3	4
FAA	38. The main reason I try at school is because I don't want my teacher to think bad things about me	<b>.823</b>	-.072	.113	-.091
	20. The main reason I try at school is because I don't want people to think bad things about me	<b>.767</b>	.093	-.031	-.005
	43. I worry about school and schoolwork	<b>.725</b>	-.122	.097	-.037
	31. The main reason I try at school is because I don't want to disappoint my parents	<b>.694</b>	.070	-.087	.204
PM	7. I feel very happy with myself when I do well at school by working hard	-.057	<b>-.803</b>	.056	.076
	4. I'm able to use some of the things I learn at school in other parts of my life	-.017	<b>-.770</b>	-.029	-.139
	2. I feel very happy with myself when I really understand what I'm taught at school	-.046	<b>-.699</b>	-.038	.123
	14. Learning at school is important	.199	<b>-.697</b>	-.050	.084
UC	18. I don't know how to get good marks at school	.061	.126	<b>.800</b>	-.064
	16. When I get a bad mark I don't know how to stop that happening next time	-.026	-.065	<b>.783</b>	.082
	12. When I get a good mark I often don't know how I'm going to get that mark again	.043	.016	<b>.755</b>	.013
PE	30. I have a plan for how to do my homework or assignments when I start them	.030	.208	-.058	<b>.774</b>
	32. When I do homework, I try to find a place where I can do it well	-.052	-.112	.122	<b>.666</b>
	36. I'll keep working at difficult schoolwork until I've worked it out	.105	-.152	-.170	<b>.662</b>
	17. When I do homework, I get organised so I can do it well	.047	-.182	.156	<b>.601</b>

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

a. Rotation converged in 8 iterations.

#### 4.4.2 Measuring scale reliability

Hopkins (2000) wrote that reliability is the capacity of an instrument to reproduce similar results under similar conditions for similar individuals and is directly linked with its validity. In the present study, Cronbach's  $\alpha$  was used as the reliability measure.

The acceptable values of Cronbach  $\alpha$ , range from 0.70 to 0.95. Because of a small number of questions, a low interrelatedness among items or heterogeneous constructs will result in a low value of Cronbach's  $\alpha$ . If a high Cronbach's  $\alpha$  is gained it might indicate that some items are redundant. The recommended maximum Cronbach's  $\alpha$  value is 0.90 (Tavakol & Dennick, 2011). McMillan and Schumacher (2001) propose that if a group of items has a Cronbach's  $\alpha$  below 0.70, the result should be viewed with concern. Conversely, a high coefficient alpha does not always indicate a high level of internal consistency. This is because Cronbach's  $\alpha$  is also influenced by the number of items in the instrument. The value of Cronbach's  $\alpha$  is low when the instrument has only a few items (Nunnally & Bernstein, 1994; Streiner, 2003). Griethuijzen et al. (2014) argues that the acceptable value of Cronbach's  $\alpha$  is 0.7 or 0.6. Taber (2017) agrees:

alpha values were described as excellent (0.93-0.94), strong (0.91-0.93), reliable (0.84-0.90), robust (0.81), fairly high (0.76-0.95), high (0.73-0.95), good (0.71-0.91), relatively high (0.70-0.77), slightly low (0.68), reasonable (0.67-0.87), adequate (0.64-0.85), moderate (0.61-0.65), satisfactory (0.58-0.97), acceptable (0.45-0.98), sufficient (0.45-0.96), not satisfactory (0.4-0.55) and low (0.11). (p. 6)

Schmitt (1996) proposed that there is no particular value (such as 0.70) at which Cronbach's  $\alpha$  becomes acceptable; however, he explained that scales with a low value of Cronbach's  $\alpha$  may still be functional in some situations.

As explained in the previous section, four factors were derived from the EFA as the final factor solution. For ease of interpretation, the factors are sequenced as PM, PE, FAA and UC. Accordingly, each factors' reliability was measured using Cronbach's  $\alpha$ , and the results are presented in Table 4.8 below.

**Table 4.8: Reliability measures for the four-factor solution of the MES-JS data**

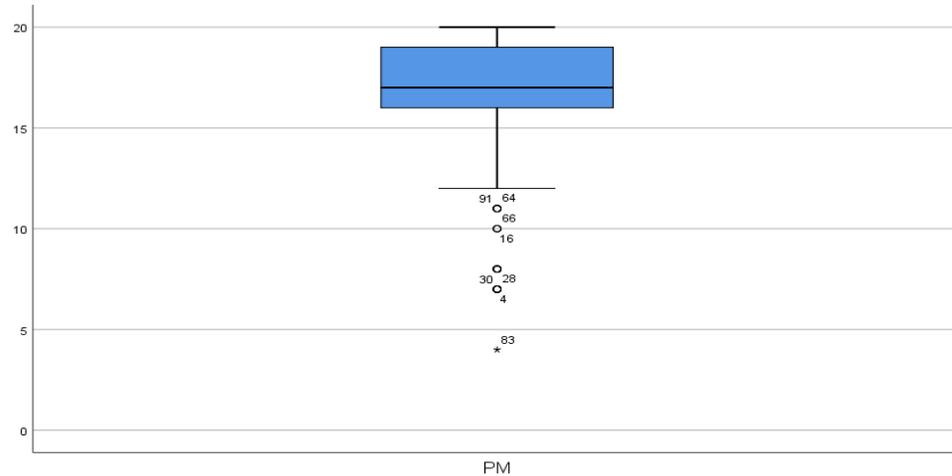
Factor	Principal component Analysis	
	No. of items	Cronbach's $\alpha$
PM	4	.758
PE	4	.678
FAA	4	.764
UC	3	.702

The PM, FAA, and UC factors demonstrated a Cronbach's  $\alpha$  of greater than 0.7, while PE was 0.678. Considering all information relevant to the use of Cronbach's  $\alpha$ , it was considered that all factors were acceptable with the current study sample. It should be noted that in the MES-JS, Cronbach's  $\alpha$  for the 'anxiety' lower-order factor was .66, which was considered reliable. It should also be noted that, factor-created scales are likely to have inflated Cronbach's  $\alpha$ .

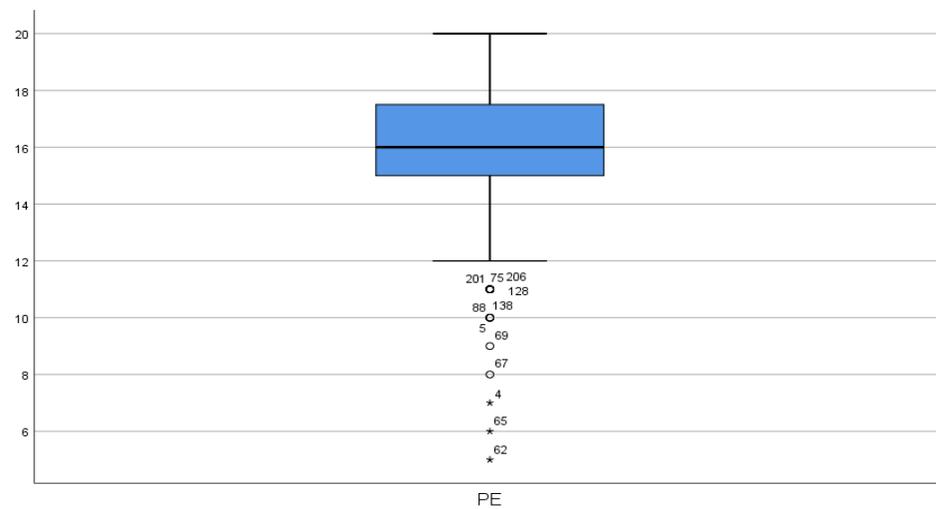
## 4.5 Descriptive statistics

Dhakal (2017, p. 61) stated: "in statistics, outlier is an observation that is numerically distant from the rest of the sample in which it occurs". Other researchers (e.g., Rahman, Sathik, & Kannan, 2012; Sweet & Martin, 2012) defined outliers as data points in a data set which are very dissimilar from other data points. Dhakal (2017) points out there are many ways to identify outliers in a data set. For this study box plots were used. Williamson, Parker, and Kendrick (1989) suggest the use of a box plot, which is a simple graphic method to quickly summarise and interpret tabular data. The box plot is one of a family of statistical techniques called exploratory data analysis employed to visually identify patterns that might otherwise be hidden in a data set. At first examination of the study data, it appeared there were 19 outliers in two of the scales, PM and PE; those data points were eliminated (see Figures 4.7 and 4.8).

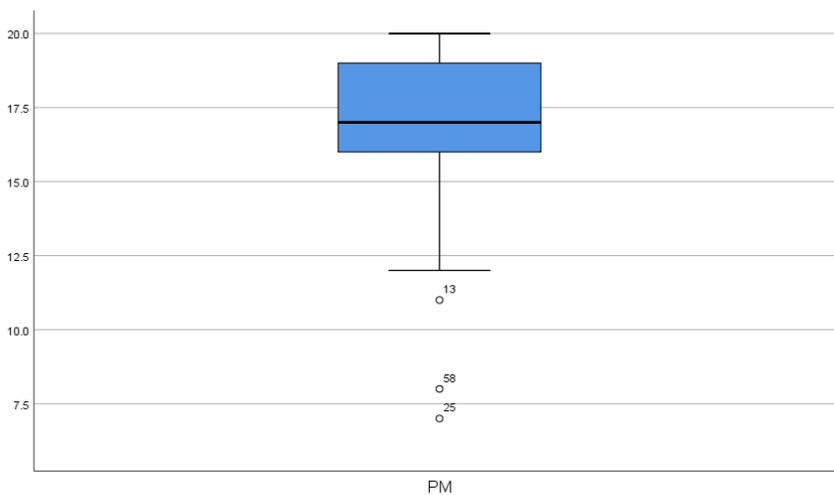
The data set was assessed again a number of times for outliers and three outliers were found in the PM scale and these were also eliminated (Figure 4.9). The final dataset with all outliers removed used in the final analysis comprised 198 data points.



**Figure 4.7: Outliers in PM - first iteration**



**Figure 4.8: Outliers in PE - first iteration**



**Figure 4.9: Outliers in PM - second iteration**

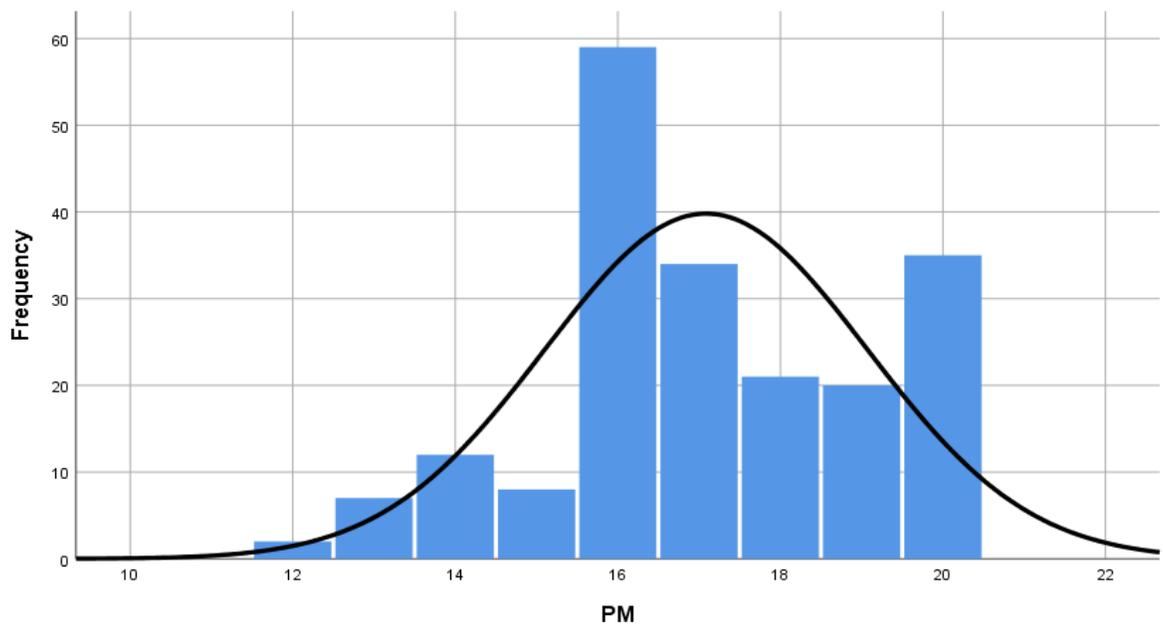
### 4.5.1 Descriptive statistics of PM

In this section descriptive statistics of PM is examined (see Table 4.9).

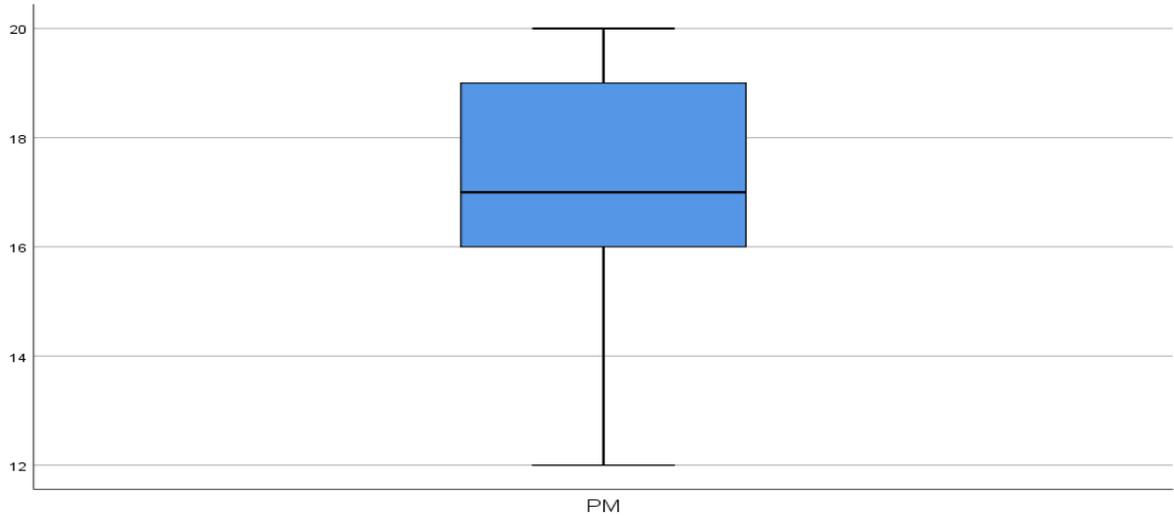
**Table 4.9: Descriptive statistics of PM**

PM	Statistic	Std. Error
N	198	
Mean	17.0859	.14101
Std. Deviation	1.98413	
Minimum	12.00	
Maximum	20.00	
Range	8.00	
Skewness	-.144	.173
Kurtosis	-.541	.344

As shown in Table 4.9, students responded positively for PM. The skewness/kurtosis ratio indicates that the test for deviation from normality has not been violated (Kim, 2013) and the scale is able to be analysed using parametric analysis. This is further evident from the histogram (Figure 4.10) and box-plot for PM (Figure 4.11).



**Figure 4.10: Histogram for PM**



**Figure 4.11: Box-plot for PM**

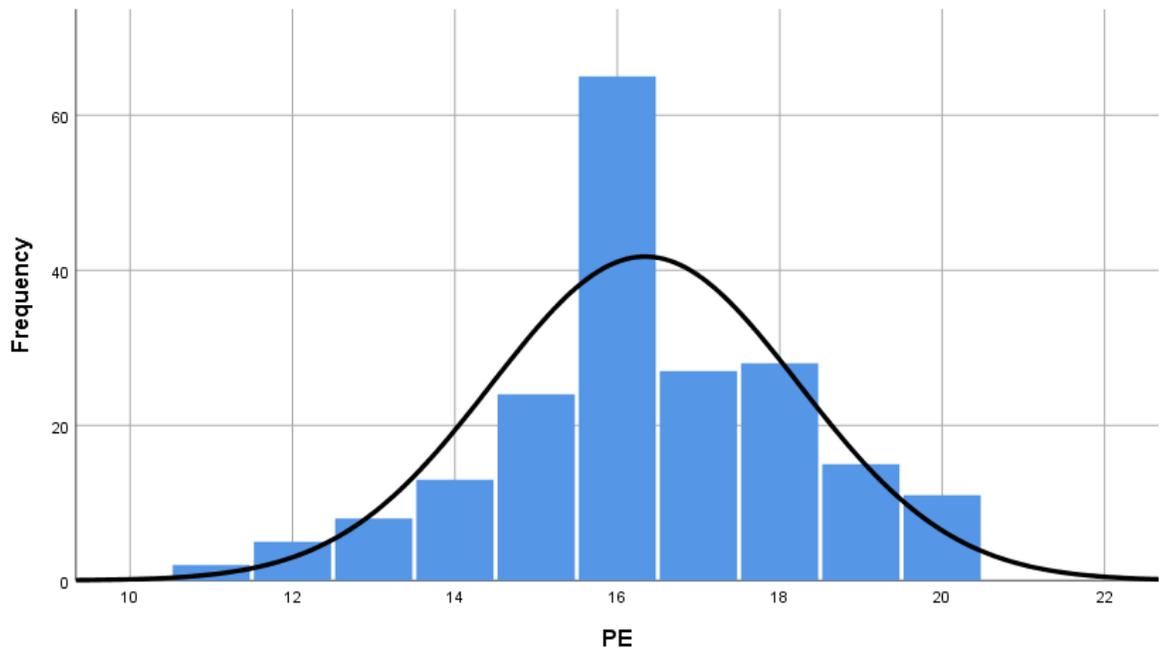
## 4.5.2 Descriptive statistics of PE

In this section descriptive statistics of PE is examined (see Table 4.10).

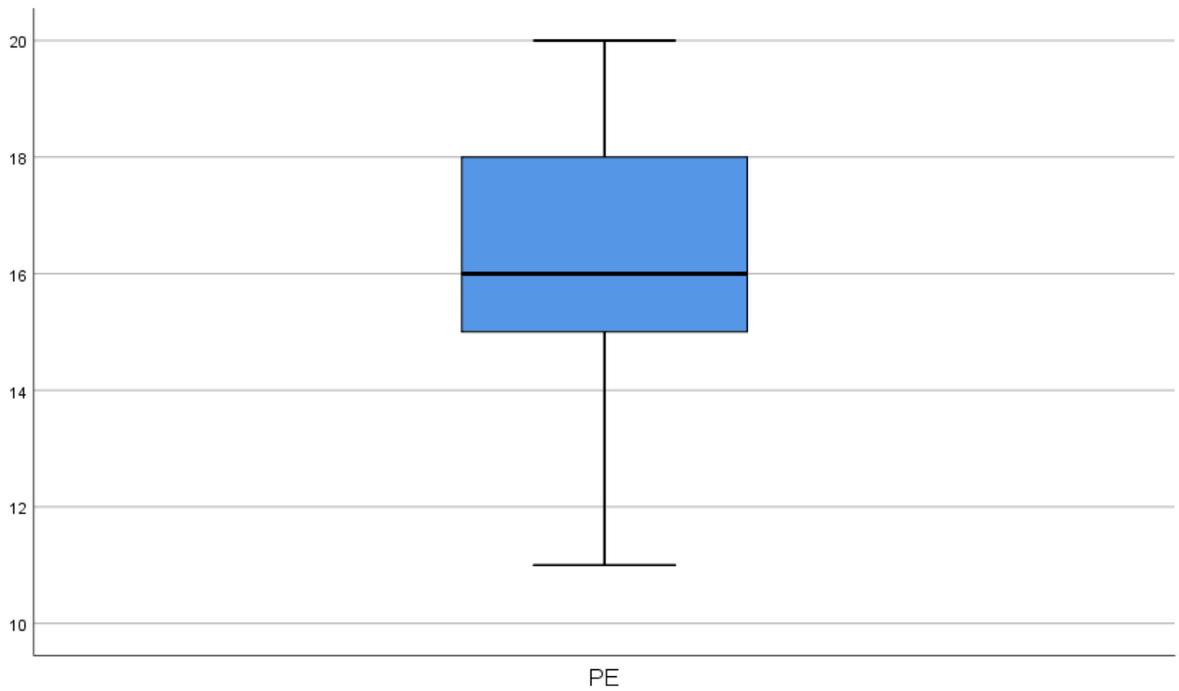
**Table 4.10: Descriptive statistic of PE**

PE	Statistic	Std. Error
N	198	
Mean	16.3434	.13441
Std. Deviation	1.89127	
Minimum	11.00	
Maximum	20.00	
Range	9.00	
Skewness	-.218	.173
Kurtosis	.148	.344

As shown in Table 4.10, students have responded positively for PE. The skewness/kurtosis ratio indicates that the test for deviation from normality has not been violated (Kim, 2013) and the scale is able to be analysed using parametric analysis. This is evident from the histogram (Figure 4.12) and box-plot for PE (Figure 4.13).



**Figure 4.12: Histogram for PE**



**Figure 4.13: Box-plot for PE**

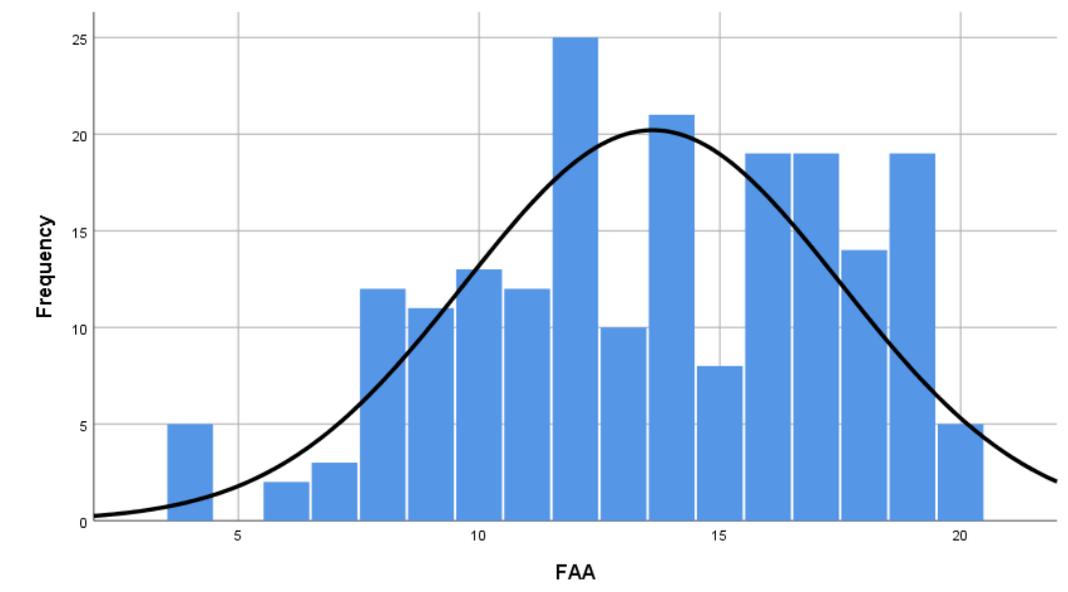
### 4.5.3 Descriptive statistics of FAA

In this section descriptive statistics of FAA is examined (see Table 4.11).

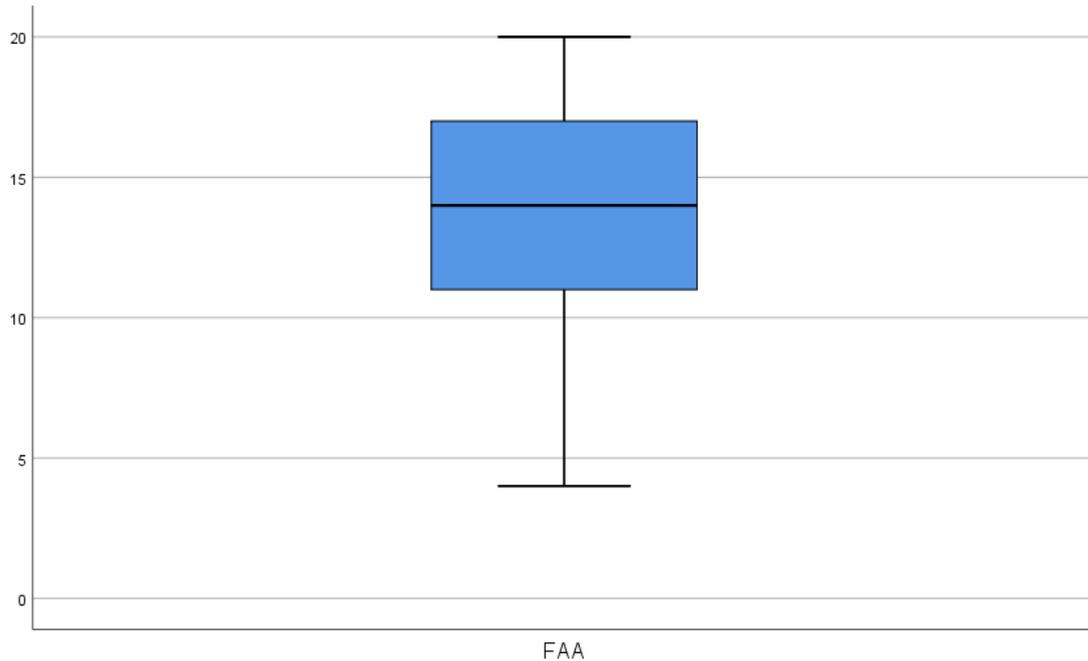
**Table 4.11: Descriptive statistics of FAA**

FAA	Statistic	Std. Error
N	198	
Mean	13.6061	.27785
Std. Deviation	3.90969	
Minimum	4.00	
Maximum	20.00	
Range	16.00	
Skewness	-.325	.173
Kurtosis	-.638	.344

As shown in Table 4.11, students have responded negatively for FAA. The skewness/kurtosis ratio indicates that the test for deviation from normality has not been violated (Kim, 2013) and the scale is able to be analysed using parametric analysis. This is evident from the histogram (Figure 4.14) and box-plot for FAA (Figure 4.15).



**Figure 4.14: Histogram for FAA**



**Figure 4.15: Box-plot for FAA**

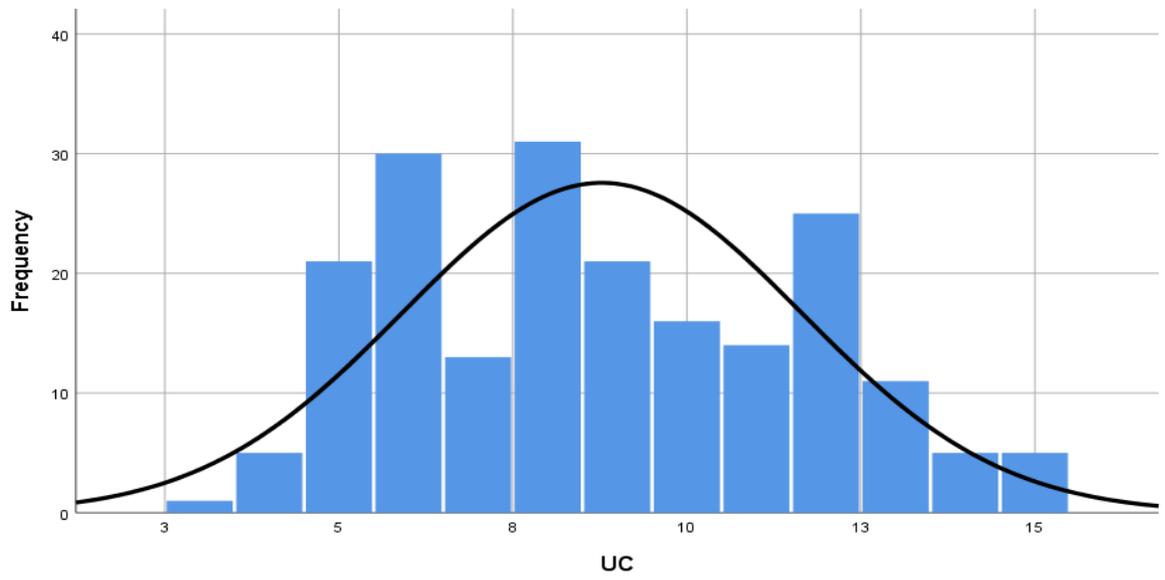
#### 4.5.4 Descriptive statistics of UC

In this section descriptive statistics of UC is examined (see Table 4.12).

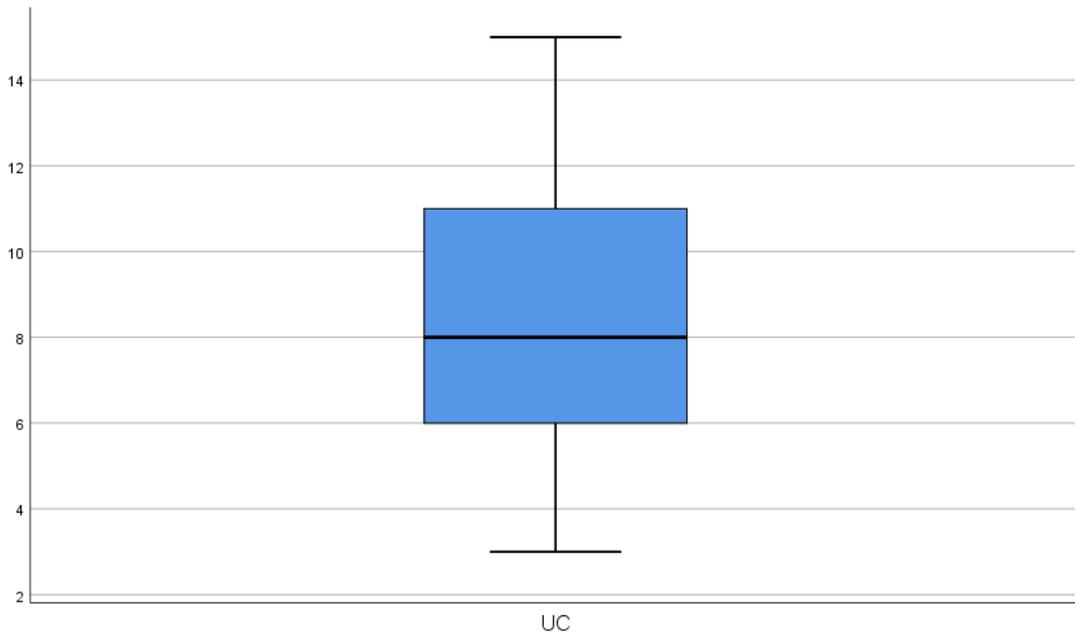
**Table 4.12: Descriptive statistics of UC**

UC	Statistic	Std. Error
N	198	
Mean	8.7778	.20368
Std. Deviation	2.86606	
Minimum	3.00	
Maximum	15.00	
Range	12.00	
Skewness	.253	.173
Kurtosis	-.897	.344

As shown in Table 4.12, students have responded negatively for UC. The skewness/kurtosis ratio indicates that the test for deviation from normality has not been violated (Kim, 2013) and the scale is able to be analysed using parametric analysis. This is evident from the histogram (Figure 4.16) and the box-plot for UC (Figure 4.17).



**Figure 4.16: Histogram for UC**



**Figure 4.17: Box-plot for UC**

## 4.6 Checking the assumptions for using parametric tests

This section discusses the findings when checking the assumptions of parametric tests. In relation to the assumption of normality, Table 4.13 shows the results of the normality test using skewness and kurtosis; all the scales showed substantial normality.

**Table 4.13: Normality test using skewness and kurtosis based on four scales**

Factor	Skewness	SE skewness	Z skewness	Kurtosis	SE kurtosis	Z kurtosis
PM	-.144	.173	-0.83	-.541	.344	-1.57
PE	-.218	.173	-1.26	.148	.344	0.43
FAA	-.325	.173	-1.87	-.638	.344	-1.85
UC	.253	.173	1.46	-.897	.344	-2.60

In this study, histograms for all the scales (Figures 4.10, 4.12, 4.14 and 4.16) were employed to check the visual inspection of distribution.

The PM, PE and FAA scales show results from tests of homogeneity of variance based on gender (Table 4.14): only PM and FAA scale variances demonstrated homogeneity of variance for ethnicity (Table 4.15). The test based upon grouping by school indicated that only the PM scale possessed homogeneity of variance (Table 4.16).

**Table 4.14: Test of homogeneity of variances for scales based on gender**

		Levene Statistic	df1	df2	Sig.
PM	Based on Mean	.018	1	196	<b>.894</b>
PE	Based on Mean	.009	1	196	<b>.925</b>
FAA	Based on Mean	3.886	1	196	<b>.050</b>
UC	Based on Mean	6.249	1	196	.013

**Table 4.15: Test of homogeneity of variances for scales based on ethnicity**

		Levene Statistic	df1	df2	Sig.
PM	Based on Mean	1.612	1	196	<b>.206</b>
PE	Based on Mean	26.646	1	196	.000
FAA	Based on Mean	2.715	1	196	<b>.101</b>
UC	Based on Mean	6.847	1	196	.010

**Table 4.16: Test of homogeneity of variances for scales based on schools**

		Levene Statistic	df1	df2	Sig.
PM	Based on Mean	1.440	13	184	<b>.145</b>
PE	Based on Mean	5.104	13	184	.000
FAA	Based on Mean	4.949	13	184	.000
UC	Based on Mean	2.304	13	184	.008

Of the four basic assumptions, normality, data type, and independently distributed errors were fulfilled; the assumption of homogeneity of variances was not. Therefore, it was decided to conduct parametric tests and non-parametric tests of the quantitative data.

Accordingly, *t*-tests were conducted on all the scales in relation to gender and ethnicity, *t*-test being robust for violations of normality (Heeren & D'Agostino, 1987; Sullivan & D'Agostino, 1992) and SPSS offers the capacity to account for non-normal distributions (Field, 2013). The PM and FAA scales were considered for analyses in two-way MANOVA and follow-up two-way ANOVA. In one-way ANOVA, only the PM scale was considered for analyses. Further Kruskal-Wallis *H* tests were conducted for PE, FAA, and UC scales.

## 4.7 Inferential statistics

As discussed in Chapter 3 and further explained above previous, the parametric tests conducted were *t*-tests, two-way MANOVA, two-way ANOVA, and one-way ANOVA. The non-parametric tests conducted were the Kruskal-Wallis *H* test. The results are presented in a series of tables adapted from SPSS output files.

### 4.7.1 *t*-tests

In this study, *t*-tests were used to identify the significant differences between gender groups and between ethnic groups. Inspection of relevant indicators exposed that there were no problems conforming to the assumptions of *t*-tests other than the homogeneity of variances; in *t*-tests the significant values in 'equal variances not assumed' were used for analyses.

#### 4.7.1.1 Comparisons between gender groups on the four motivation and engagement dimensions

This section aims to respond to the research question three: do levels of motivation and engagement in learning vary with gender for junior secondary students in low socio-economic schools in Sri Lanka?

An independent-samples *t*-test was conducted to compare PM, PE, FAA, and UC in gender groups (Table 4.17).

**Table 4.17: Summary of t-tests results showing comparisons between gender groups on the four motivation and engagement dimensions**

Factor	Gender	N	Mean	SD	t	df	Mean Diff.	Sig.
PM	Male	94	16.79	2.03	-1.94	190.80	-0.54	<b>0.053</b>
	Female	104	17.34	1.90				
PE	Male	94	16.12	1.98	-1.52	188.14	-0.41	0.129
	Female	104	16.53	1.78				
FAA	Male	94	13.43	3.65	-.584	195.88	-0.32	0.560
	Female	104	13.75	4.14				
UC	Male	94	8.77	2.59	-.006	194.85	-0.002	0.996
	Female	104	8.77	3.10				

There was no significant difference identified for PE, FAA and UC scales based upon gender. These results indicate that, for the participants in this study, there were no significant differences based on gender in the levels of positive engagement, failure avoidance and anxiety, and uncertain control, in the school experience. However, the result for the PM scale was close to significant, indicating there may be differences based on gender for positive motivation. Accordingly, males PM are significantly lower than females. As discussed in the qualitative data analysis, this might be due to particular negative school-related conditions faced by male students: harsh punishments, influence of peers, and more inadequate quality learning activities than for females.

Martin and Marsh (2005) conducted a study using 964 junior and middle high school students in years 8 and 10 in five co-educational government schools in Australia. They found that girls had higher levels of motivation and engagement at a statistically significant level. The current study also showed that in relation to positive motivation,

females' motivation and engagement levels are higher than males. Therefore, it seems that current study findings are consistent to some extent with the existing literature.

Martin (2012) examined the effect of gender and age on high school motivation. He sampled 33,778 high school students in 92 Australian schools. There were significant gender and age effects, which resulted from the interaction between gender and age. Females' motivation and engagement were mainly higher than males. Also 12–13 year-olds' motivation and engagement levels were higher than 14–15 year olds'. The interaction effects show that males and females' motivation and engagement decreased between the ages 12–13 years and 14–15 years. However, the motivation and engagement of most female students improved in later adolescence, while this was not the case for male students. Though, the current study did not examine students' motivation and engagement in learning across ages, this study finding is broadly consistent with the current study.

Bugler et al.(2015) investigated gender disparities in adolescents' academic motivation and their behaviour in the classroom. They sampled 750 grade 7–11 pupils (384 boys and 366 girls) aged 11–16 (mean age of 14) from five secondary schools in the UK. Their results show that girls normally showed higher levels of academic motivation and teacher reports of boys' behaviour were not good. They also found that the levels of academic motivation of the boys was strongly linked to teacher reports of classroom behaviour. In addition, Bugler et al. found that cognitive parts of boys' motivation were greater predictors of their behaviour in the classroom than behavioural parts. In contrast, behavioural parts of girls' motivation were greater predictors of their behaviour. The study for this thesis does not examine classroom behaviour but supports Bugler et al.'s finding that girls normally showed higher levels of academic motivation than boys.

Findings concerning the motivation of students is consistent with that of other students – that is PM, but the findings of the other three factors, PE and negative aspects of motivation and engagement (FAA and UC) have not been tested in other studies.

#### 4.7.1.2 Comparisons between ethnic groups on the four motivation and engagement dimensions

This section aims to respond to research question four: do levels of motivation and engagement in learning vary with ethnicity for junior secondary students in low socio-economic schools in Sri Lanka?

An independent-samples *t*-test was conducted to compare PM, PE, FAA, and UC in ethnic groups (Table 4.18).

**Table 4.18: Summary of t-test results showing comparisons between ethnic groups on the four motivation and engagement dimensions**

Factor	Ethnicity	N	Mean	SD	t	df	Mean Diff.	Sig.																																		
PM	Tamil	90	17.93	1.83	5.94	189.35	1.55	<b>0.001</b>																																		
	Sinhala	108	16.37	1.82					PE	Tamil	90	16.76	2.24	2.82	146.70	0.77	<b>0.005</b>	Sinhala	108	15.99	1.45	FAA	Tamil	90	16.26	2.76	11.32	195.98	4.87	<b>0.001</b>	Sinhala	108	11.38	3.29	UC	Tamil	90	9.66	3.08	4.05	168.46	1.62
PE	Tamil	90	16.76	2.24	2.82	146.70	0.77	<b>0.005</b>																																		
	Sinhala	108	15.99	1.45					FAA	Tamil	90	16.26	2.76	11.32	195.98	4.87	<b>0.001</b>	Sinhala	108	11.38	3.29	UC	Tamil	90	9.66	3.08	4.05	168.46	1.62	<b>0.001</b>	Sinhala	108	8.03	2.44								
FAA	Tamil	90	16.26	2.76	11.32	195.98	4.87	<b>0.001</b>																																		
	Sinhala	108	11.38	3.29					UC	Tamil	90	9.66	3.08	4.05	168.46	1.62	<b>0.001</b>	Sinhala	108	8.03	2.44																					
UC	Tamil	90	9.66	3.08	4.05	168.46	1.62	<b>0.001</b>																																		
	Sinhala	108	8.03	2.44																																						

A significant difference exists for all scales based on ethnicity, with the mean result for the Tamil students being significantly higher than for the Sinhala students. These results indicate those Sinhala-medium students' levels of positive motivation and positive engagement in learning was lower than those of Tamil-medium students. These results also indicate those Tamil-medium students' levels of failure avoidance, anxiety, and uncertain control were higher than those of Sinhala-medium students. This might be caused by the particular school-related conditions of Tamil-medium students, as discussed in Chapter 5: unfriendly teaching-learning environment, inadequate classroom resources, teacher absence, lack of quality teaching, and inadequate quality teaching-learning resources.

Martin and Hau (2010) studied 528 Hong Kong Chinese 12–13 year-olds and a sample of 6,366 Australian 12–13 year-olds. Chinese students showed lower levels of achievement motivation than Australian students. Though the current study considered two ethnic

groups within a country, it supports the findings of Martin and Hau in that different ethnic groups can have different motivation and engagement in learning.

#### 4.7.2 Two-way MANOVA and two-way ANOVA

A two-way MANOVA was employed to compare the interaction effect of gender and ethnicity. As discussed above, inspection of relevant indicators found that there were no problems conforming to the assumptions other than the homogeneity of variances. In gender, PM, PE and FAA scale variances were equal, and in ethnicity, PM and FAA scales variances were equal. Therefore, only PM and FAA scales were considered for analyses using two-way MANOVA and follow-up two-way ANOVA.

A two-way between groups factorial MANOVA was conducted using gender and ethnicity as the independent variables defining the interaction between groups to be compared, and PM and FAA as the dependent variables.

**Table 4.19: Summary of two-way MANOVA tables analysing gender and ethnicity differences on PM and FAA**

Multivariate Tests							
Effect	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared	
Wilks' Lambda	.992	.794 <sup>b</sup>	2.000	193.000	.454	.008	
Tests of Between-Subjects Effects							
Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Gender	* PM	.086	1	.086	.026	.872	.000
Ethnicity	FAA	14.869	1	14.869	1.578	.211	.008
Error	PM	646.357	194	3.332			
	FAA	1828.253	194	9.424			
Corrected Total	PM	775.540	197				
	FAA	3011.273	197				

The results summarised in Table 4.19 show no significant multivariate gender groups by ethnic groups' interaction effect on the set of dependent variables.

#### 4.7.3 One-way ANOVA

In this study, one-way ANOVA tests were employed to compare the levels of motivation and engagement among schools based on ethnicity. As discussed above, inspection of

relevant indicators found that there the data conformed sufficiently to the necessary assumptions other than the homogeneity of variances. In relation to schools, only the PM scale variances were equal. Therefore, a one-way ANOVA was conducted using schools as the independent variable (14 groups) defining the groups to be compared, and PM as the dependent variable in relation to both ethnic groups. Please noted that in the multiple comparisons table only the significant mean differences, marked with an asterisk (\*) are be presented.

**Table 4.20: Summary of one-way ANOVA tables (SPSS) analysing school differences on PM in Tamil-medium**

		ANOVA				
PM		Sum of Squares	df	Mean Square	F	Sig.
Between Groups		51.150	5	10.230	3.459	<b>.007</b>
Within Groups		248.450	84	2.958		
Total		299.600	89			

Multiple Comparisons Dependent Variable: PM					
Tukey HSD	(J) School	Mean	SD	Mean Difference (I-J)	Sig.
School 2 M=18.64 SD=1.45	School 13	15.75	.70	2.89706*	<b>.002</b>
School 5 M=18.41 SD=1.90	School 13	15.75	.70	2.66176*	<b>.007</b>
School 13 M=15.75 SD=.70	School 2	18.64	1.45	-2.89706*	<b>.002</b>
	School 5	18.41	1.90	-2.66176*	<b>.007</b>

As shown in Table 4.20, there are statistically significant differences between groups as determined by one-way ANOVA ( $F(5, 84) = 3.459, p = .007$ ). A Tukey post-hoc test found that Tamil-medium schools 2 (M=18.64, SD=1.45) and 5 (M=18.41, SD=1.90) had significantly higher mean scores compared to school 13 (M=15.75, SD=.70) in PM.

**Table 4.21: Summary of one-way ANOVA tables (SPSS) analysing school differences on PM in Sinhala medium**

ANOVA						
PM		Sum of Squares	df	Mean Square	F	Sig.
Between Groups		88.385	7	12.626	4.693	.000
Within Groups		269.050	100	2.690		
Total		357.435	107			

Multiple Comparisons						
Dependent Variable: PM						
Tukey HSD						
(I) School	(J) School	Mean	SD	Mean Difference (I-J)	std. Error	Sig.
School 6 M=18.10 SD=1.68	School 8	14.25	1.25	3.85000*	.89842	.001
	School 9	16.00	1.93	2.10000*	.65838	.039
	School 10	16.12	1.40	1.97500*	.55016	.012
	School 11	16.10	1.88	2.00000*	.51870	.005
	School 12	16.15	1.89	1.95000*	.51870	.007
School 8 M=14.25 SD=1.25	School 14	15.60	1.07	2.50000*	.63528	.004
	School 6	18.10	1.68	-3.85000*	.89842	.001
School 9 M=16.00 SD=1.93	School 6	18.10	1.68	-2.10000*	.65838	.039
School 10 M=16.12 SD=1.40	School 6	18.10	1.68	-1.97500*	.55016	.012
School 11 M=16.10 SD=1.88	School 6	18.10	1.68	-2.00000*	.51870	.005
School 12 M=16.15 SD=1.89	School 6	18.10	1.68	-1.95000*	.51870	.007
School 14 M=15.60 SD=1.07	School 6	18.10	1.68	-2.50000*	.63528	.004

As shown in Table 4.21, there was a statistically significant difference between groups as determined by one-way ANOVA ( $F(7, 100) = 4.693, p = .001$ ). A Tukey post-hoc test found that Sinhala-medium school six ( $M=18.10, SD=1.68$ ) had significantly higher mean scores in PM compared to schools eight ( $M=14.25, SD=1.25$ ), nine ( $M=16.00, SD=1.93$ ), ten ( $M=16.12, SD=1.40$ ), eleven ( $M=16.10, SD=1.88$ ), twelve ( $M=16.15, SD=1.89$ ), and fourteen ( $M=15.60, SD=1.07$ ).

The results show that two Tamil-medium schools students' higher levels of PM might have influenced the Tamil-medium students significantly higher levels of PM compared to Sinhala-medium students. Interviews (Chapter 5) did not indicate why the two schools students had higher levels of PM. Sinhala-medium students also had significantly lower levels of PM compared to Tamil-medium students in *t*-test results, which may have been influenced by the six schools students' lower levels of PM. Again, there is no clear evidence from interviews (Chapter 5) why the six schools students had lower levels of PM.

#### 4.7.4 Kruskal-Wallis *H* tests

A Kruskal-Wallis *H* tests was conducted to respond to research question two: What are the levels of motivation and engagement in learning amongst junior secondary students in low socio-economic districts in Sri Lanka? and question five: What differences exist between schools in the levels of motivation and engagement in learning for junior secondary students in low socio-economic schools in Sri Lanka? In this study Kruskal-Wallis *H* tests were conducted to compare the levels of motivation and engagement among schools for the PE, FAA and UC scales, in both Tamil and Sinhala-medium.

##### 4.7.4.1 Kruskal-Wallis *H* tests results of Tamil-medium schools

The Kruskal-Wallis *H* test showed a close to significant difference in PE and a statistically significant difference in FAA and UC between the different schools in Tamil-medium (see Table 4.22).

**Table 4.22: Test statistics of Kruskal-Wallis *H* test of Tamil-medium schools.**

	PE	FAA	UC
Kruskal-Wallis H	10.638	28.426	17.933
df	5	5	5
Asymp. Sig.	.059	.000	.003

Kruskal-Wallis *H* Test ranks of Tamil-medium schools in FAA and UC are shown in Table 4.23.

**Table 4.23: Kruskal-Wallis  $H$  Test ranks of Tamil-medium schools**

		Ranks	
	School	N	Mean Rank
FAA	School 1	16	53.09
	School 2	17	46.29
	School 3	20	63.28
	School 4	12	43.25
	School 5	17	34.62
	School 13	8	10.69
	<b>Total</b>		<b>90</b>
UC	School 1	16	35.94
	School 2	17	59.44
	School 3	20	57.28
	School 4	12	26.75
	School 5	17	41.76
	School 13	8	41.63

Kruskal-Wallis  $H$  test results using post-hoc Mann-Whitney  $U$  tests for FAA in Tamil-medium schools are shown in Table 4.24. Kruskal-Wallis  $H$  test results using post-hoc Mann-Whitney  $U$  tests for UC the mean rank UC score of school 2(.013) and school 3(.019) was significantly higher than the mean rank scores of school 4.

**Table 4.24: Pair wise  $p$  values for the Kruskal-Wallis  $H$  test for FAA of Tamil-medium schools**

Groups	<i>Sig.</i>
School 13-School 2	.020
School 13-School 1	.002
School 13-School 3	.001
School 5-School 3	.012

As shown in Tables 4.23 and 4.24, a Kruskal-Wallis  $H$  test using post-hoc Mann-Whitney  $U$  test found that the mean rank FAA scores of schools 1 (53.09), 2 (46.29) and 3 (63.28) were significantly higher than the mean rank scores of school 13 (10.69). A Kruskal-Wallis  $H$  test using post-hoc test also found that the mean rank FAA scores of school 3 (63.28) were significantly higher than the mean rank scores of school 5 (34.62).

Tables 4.23 also show that a Kruskal-Wallis  $H$  test using post-hoc test found that the mean rank UC score of school 2 (59.44) and school 3 (57.28) was significantly higher than the mean rank scores of school 4 (26.75).

#### 4.7.4.2 Kruskal-Wallis H test results of Sinhala-medium schools

A Kruskal-Wallis  $H$  test showed that there was a statistically significant difference in PE and UC and a close to significant difference in FAA between the different schools in Sinhala-medium (see Table 4.25). See Table 4.26 for the Kruskal-Wallis  $H$  Test ranks of Sinhala-medium schools in PE and UC.

**Table 4.25: Test statistics of Kruskal-Wallis  $H$  Test of Sinhala-medium schools**

	PE	FAA	UC
Kruskal-Wallis H	16.218	13.981	20.289
df	7	7	7
Asymp. Sig.	.023	.052	.005

**Table 4.26: Kruskal-Wallis  $H$  Test ranks of Sinhala-medium schools**

		Ranks	
	School	N	Mean Rank
PE	School 6	20	62.65
	School 7	9	60.22
	School 8	4	95.75
	School 9	9	51.94
	School 10	16	57.13
	School 11	20	53.40
	School 12	20	45.35
	School 14	10	35.15
	<b>Total</b>		<b>108</b>
UC	School 6	20	53.60
	School 7	9	66.44
	School 8	4	19.00
	School 9	9	69.83
	School 10	16	46.88
	School 11	20	65.35
	School 12	20	58.93
	School 14	10	27.60
	<b>Total</b>		<b>108</b>

A Kruskal-Wallis  $H$  test using post-hoc Mann-Whitney  $U$  test that the mean rank PE scores of Sinhala-medium school 12 (45.35) and school 14 (35.15) were significantly lower (.049 and .014) than the mean rank scores of school 8 (95.75).

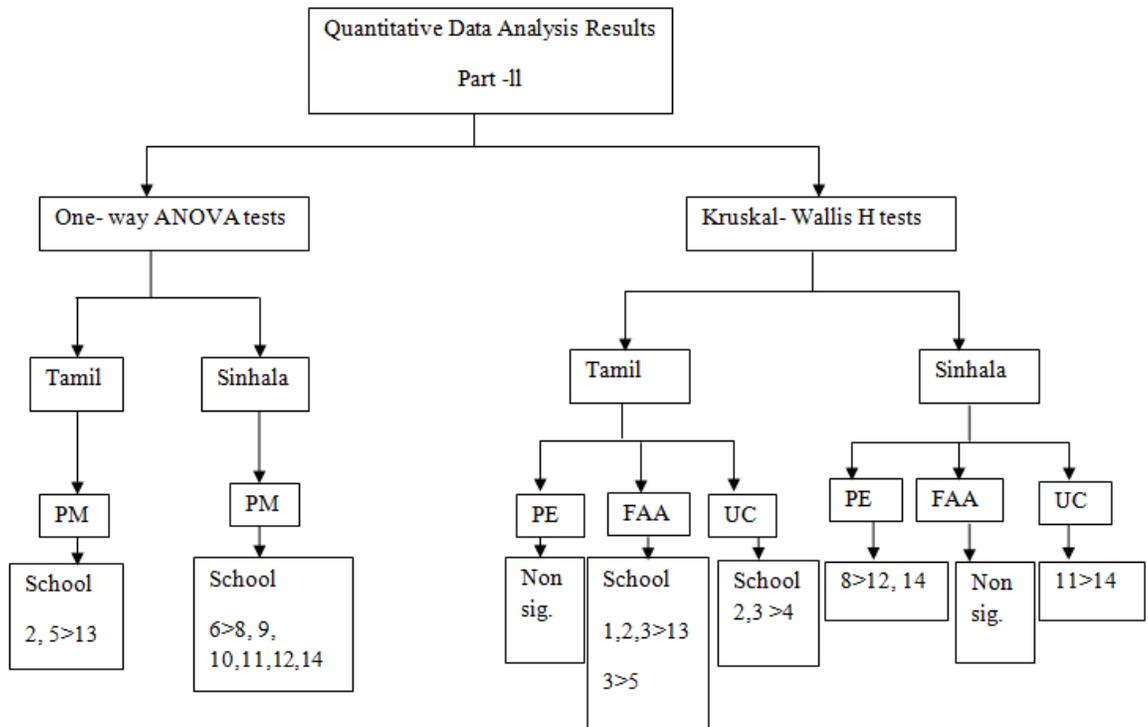
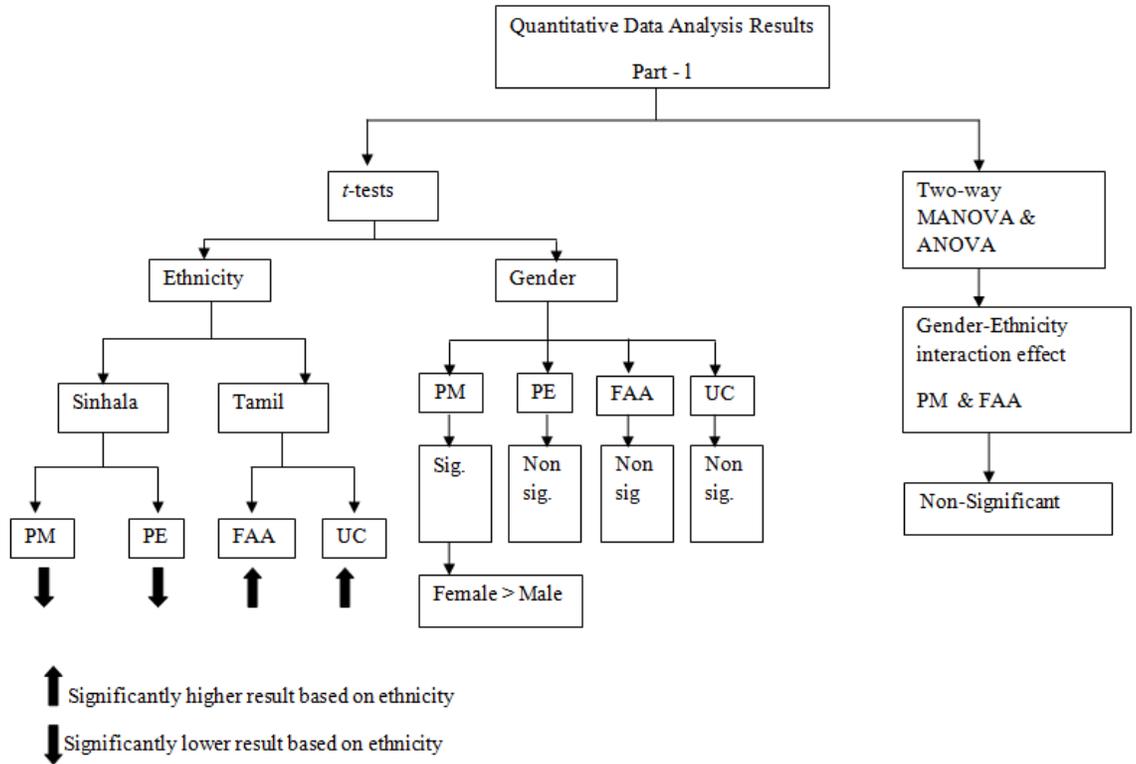
Also Kruskal-Wallis  $H$  test using a post-hoc Mann-Whitney  $U$  test that the mean rank UC scores of Sinhala-medium school 11 (65.35) were significantly higher (.045) than the mean rank scores of school 14 (27.60).

It is apparent that while there were significant differences in motivation and engagement based on ethnicity, there were also significant differences within schools in the ethnic groups. This result indicates that Sinhala-medium students have significantly lower levels of PE compared to Tamil-medium students – as shown in  $t$ -tests results – and it might have influenced by Sinhala-medium school 12 and 14 lower levels of PE. In contrast, Tamil-medium students' significantly higher levels of FAA compared to Sinhala-medium students as shown in  $t$ -tests results might have been influenced by Tamil-medium school 1, 2 and 3 higher levels of FAA. Furthermore, Tamil-medium students' significantly higher levels of UC compared to Sinhala-medium students shown in  $t$ -tests results might have been influenced by Tamil-medium school 2 and 3 higher levels of UC. However, it should also be noted that there is no any clear evidence from the interviews as to the reasons for different levels of PM, FAA, and UC scores.

## **4.8 Discussion and summary**

In the first section of this chapter, CFA techniques were employed to measure the construct validity of MES-JS. The goodness-of-model fit showed a poor fit for the factor structure of MES-JS and it was decided to conduct EFA techniques. Several procedures were used to consider the suitability of the current data set for EFA, namely, sample size, sample to variable ratio, factorability of the correlation matrix, and Kaiser-Meyer-Olkin measure of sampling adequacy/Bartlett's Test of Sphericity. PCA was used to extract factors. The rotation method employed was direct oblimin, and factor loadings cut-off considered was 5.0. According to the initial eigenvalues and scree plot, four factors were extracted. Those four new factors were named as FAA, PM, UC and PE. Cronbach's  $\alpha$  was measured for those four factors and acceptable values were obtained.

In the second section of this chapter, descriptive statistics of the four factors were presented. Inferential statistics were then presented. *t*-tests were employed to compare gender groups and ethnic groups in relation to PM, PE, FAA and UC. Two-way MANOVA and two-way ANOVA were employed to identify the interaction effect between gender and ethnic groups for PM and FAA (Figure 4.18, Part 1). A one-way ANOVA was employed to compare students' levels of PM among the schools based on the two ethnic groups. Finally, Kruskal-Wallis *H* tests were used to compare students' levels of PE, FAA and UC among the schools in both ethnic groups separately. The overall findings of quantitative data analysis is presented in Figure 4.18



**Figure 4.18: Summary of the quantitative data analysis results: Part I and Part II**

# **CHAPTER 5: QUALITATIVE DATA FINDINGS AND DISCUSSION**

## **5.1 Introduction**

This chapter assessed the validity of the interviewed sample. Following this, an investigation of the school-related conditions impacting early adolescents' motivation and engagement in learning, the motivational strategies taken by the respective schools (before conducting this study) to increase students' motivation and engagement in learning, and their suggestions for further improvement is presented. The qualitative findings presented in this chapter are an outcome of thematic analysis (see Chapter 3).

In this study, a sequential explanatory mixed methods research design was employed. In the quantitative phase, the Motivation and Engagement Scale-Junior School was administered to 220 students. In the qualitative phase, semi-structured interviews were conducted with 24 students, 12 teachers and 12 principals from October 2015 to January 2016. Those participants were chosen from the Type 2 schools located in Monaragala and Nuwara Eliya (low socio-economic) districts in Sri Lanka. The findings from the interviews will be discussed together under students' perspectives and teachers' and principals' perspectives.

## **5.2 Checking the validity of the students interviewed**

The results of the quantitative phase in this study showed there were significant differences between sub-samples but no clear conclusion could be drawn for the whole sample concerning low motivation and engagement. However, the quantitative phase of the study did enable the identification, based on their MES-JS scores, of a cohort of students who were struggling with motivation and engagement in learning. These students were interviewed to determine what contributed to their struggle. To validate student selection, the original scores of students were cross-checked with scores gained using the new scale derived through PCA and showed the same students (with higher negative motivation) in both Tamil-medium and Sinhala-medium. Tables 5.1 (Tamil-medium) and 5.2 (Sinhala-medium) indicate that the selected students demonstrated relatively high

scores for FAA and/or UC, indicating challenges in relation to motivation and engagement in learning.

**Table 5.1: New scales mean scores for selected least motivated and engaged Tamil-medium students**

<b>Ethnicity</b>	<b>Gender</b>	<b>PM</b>	<b>PE</b>	<b>FAA</b>	<b>UC</b>
Tamil	Male	17.00	17.00	19.00	12.00
Tamil	Male	20.00	16.00	14.00	13.00
Tamil	Male	17.00	12.00	12.00	14.00
Tamil	Male	20.00	14.00	18.00	6.00
Tamil	Male	4.00	16.00	16.00	15.00
Tamil	Female	19.00	17.00	17.00	7.00
Tamil	Female	15.00	15.00	19.00	13.00
Tamil	Female	17.00	18.00	18.00	12.00
Tamil	Female	16.00	16.00	17.00	10.00
Tamil	Female	13.00	11.00	14.00	8.00
Mean		15.80	15.20	16.40	11.00

**Table 5.2: New scales mean scores for selected least motivated and engaged Sinhala-medium students**

<b>Ethnicity</b>	<b>Gender</b>	<b>PM</b>	<b>PE</b>	<b>FAA</b>	<b>UC</b>
Sinhala	Male	20.00	17.00	17.00	9.00
Sinhala	Male	16.00	16.00	14.00	12.00
Sinhala	Male	14.00	18.00	10.00	5.00
Sinhala	Male	19.00	16.00	19.00	14.00
Sinhala	Male	16.00	16.00	14.00	12.00
Sinhala	Male	13.00	16.00	16.00	8.00
Sinhala	Male	16.00	16.00	14.00	12.00
Sinhala	Female	16.00	18.00	16.00	12.00
Sinhala	Female	18.00	16.00	6.00	14.00
Sinhala	Female	13.00	16.00	16.00	8.00
Sinhala	Female	16.00	17.00	19.00	13.00
Sinhala	Female	13.00	18.00	10.00	6.00
Sinhala	Female	17.00	18.00	19.00	12.00
Sinhala	Female	16.00	16.00	14.00	12.00
Mean		15.92	16.71	14.57	10.64

## **5.3 School-related conditions impacting students' motivation and engagement in learning**

In this section, school-related conditions impacting students' motivation and engagement in learning from the perspective of students, teachers and principals will be discussed. The objective of this section is to answer the sixth research question: What school-related conditions impact upon junior secondary students' motivation and engagement in learning in low socio-economic schools in Sri Lanka?

The student interviews were conducted with the lowest motivated and engaged students. Therefore, the following themes are likely to be representative of and generalisable to the most demotivated students. In relation to the teachers' and principals' responses, these were situated in the context of all low motivated and engaged students in that particular grade. All the themes derived will be discussed from the lens of SDT. Therefore, the discussion under each theme heading considers whether the principles of SDT were fulfilled.

### **5.3.1 Students' perspectives**

Analysis of interviews revealed two main themes in relation to the school conditions that impacted early adolescents' motivation and engagement in learning: (1) quality of classroom relationships and (2) quality of curriculum and resources.

#### **5.3.1.1 Quality of classroom relationships**

Within the quality of classroom relationships theme, a further three sub-themes emerged: (1) negative teacher-student relationships, (2) lack of intrinsic motivation, and (3) influence of peers.

##### **Negative teacher-student relationship**

Interviewed students' responses revealed there was a negative impact of the teacher-student relationship for early adolescents' who identified as having low motivation and engagement in learning. Under this sub-theme, four categories emerged: (1) harsh punishments, (2) inadequate encouragement, (3) disinterested teaching, and (4) unfriendly teaching-learning environment.

## ***Harsh punishment***

The *Corporal Punishment of Children in Sri Lanka* report (2017) states:

The instruction by Circular No. 17/2005 not to use corporal punishment should be confirmed through the enactment of legislation clearly prohibiting all corporal punishment in all education settings, as well as explicit repeal of the Criminal Code provision on criminal force in relation to flogging of students (art. 341) and the right of teachers “to administer punishment” in the Children and Young Persons Ordinance 1939 (art. 71(6)). (pp. 1–2)

Even though the law in Sri Lanka prohibits corporal punishment in schools, it is still practiced in schools. The findings of this study revealed that the majority of students reported that most of their teachers administered harsh punishments to them. This was particularly true for male students; they noted this was the reason they hated school.

Science teacher punishes us. As soon as we give a wrong answer, he hits us. I don't like learning science at all. S 1

I'm punished by teachers in front of my friends. So, I'm so upset. I hate learning mathematics. S 4

Some teachers punish us for unfinished work. So, I don't like them. When I remember those things, I feel so worried. S 12

Some students scoring low marks reported facing verbal threats from teachers. The participants were in agreement that teachers threatened their self-esteem. Most of the male students interviewed mentioned that being openly scolded by teachers in front of the class caused them severe embarrassment. Students noted how an unkind teacher would frequently become angry with the whole class for something that only a small number of students had done. Students considered this as unjust because it deprived them of time that could have been spent on class work.

In relation to ethnicity, both Sinhala and Tamil-medium students were given harsh punishments by their teachers for non-completion or bad performance in learning activities. Some Sinhala-medium students stated that their teachers were very tough, and

some teachers punished them for each wrong answer. The following quotes illustrate students' responses:

I do not like learning English. The teacher looks at me very angry always.  
Some teachers punish us for not completing homework. S 20

I like Tamil teacher. He is not like other teachers who punish us always. I come to school because of him. He never punishes me. He encourages me in learning. S 7

When I ask something difficult for me to understand, they always scold us. S 4

Some teachers do not smile with us. I'm afraid to look at their faces.

I do not like male teachers. They blame us. S 3

Most of my teachers are mean. S 21

Jayaweera and Gunawardena (2013) found that children reported that high absenteeism was linked to harsh punishment given in school in Sri Lanka. Jayaweera and Gunawardena (2009) found that punishment of students by teachers was very high in Type 1AB (schools having GCE (A/L) with all the subject streams (Grade 1-13) and 1C (schools having GCE (A/L) Arts/Commerce streams only /No Science stream (Grade 1-13) schools. However, this study sample consisted of Type 2 schools (schools having classes Grade 1-11). The types of punishment described by students included corporal punishment. Wagle (2012) found that corporal punishment was one of the school-related problems that forced students to leave school early. In addition, Ministry of Education et al. (2009) found that teachers regularly punished students and that they did not attempt to recognise the learning hardships or the personal problems of children and identified these as probable causes of early dropout. The findings of the current study supported the findings of the previous research.

Reeve and Jang (2006) argued that controlling language, such as commands, decreases autonomy in students. Similarly, Vansteenkiste et al. (2006) indicated that using guilt-inducing language as a control mechanism creates internal pressure. Niemiec and Ryan

(2009) proposed that teachers could use strategies to enhance relatedness by passing on kindness, being thoughtful and valuing students.

At the controlled or non-autonomous end of this continuum is external regulation in which a person's actions are compelled or driven by externally controlled rewards or punishments. Here the behaviour is fuelled by the contingencies of reinforcement and punishment. (Ryan, Williams, Patrick, & Deci, 2009, p. 112).

Reeve et al. (2004) found in their study that students' levels of engagement could be increased by using non-controlling language as measured by active task involvement and attempts to take responsibility for their learning; that is making many of the learning tasks in schools intrinsically motivating. An essential concern is how to motivate students to self-regulate and value those tasks (Ryan & Deci, 2000a).

In sum, student comments in the interviews indicate that the students receive substantial negative external pressure from some of their teachers and, which possibly explains their decreased intrinsic motivation.

### ***Inadequate encouragement***

The majority of interviewed students' claimed they were not appreciated by teachers; very few noted encouragement. The students did not indicate a lack of encouragement based on gender or ethnicity difference. Following are some quotes from the students in the study sample.

Sometimes my teachers encourage me, when I am good at work. S 22

When I was given an appreciation in front of others I feel very happy ... But, I do not get those. S 6

Our teachers do not encourage us. They do not encourage our attempts. S 14

When I try to give an answer, some of my teachers do not allowed me to do that. They think that I always give wrong answers. S 4

If our teachers appreciate us, we are very happy ... We do not want to get blamed at all the times. S 15

Sometimes I do some parts of my homework as I can. Then teachers blame me for not completing tasks. So, I am so worried. S 9

Reeve and Jang (2006) argue that teachers can use praise to foster improvement, encourage effort, offer hints to students to boost progress, and be responsive to students' perspectives to increase students' perceptions of autonomy. Elliot et al. (2000) states that positive, constructive performance feedback that encourages development facilitates internalisation of self-regulation.

Teachers should provide students with suitable tools and encourage them to accomplish their learning goals. A predominant view is that students will only connect and individually value activities they can comprehend and in which they can be proficient (Niemic & Ryan, 2009). Moreover, it is possible that teachers are more attentive to students who demonstrate concentration during the lesson and provide those students with more constructive feedback, and, therefore, those teachers are regarded by the students as being autonomy-supportive (Tsai et al., 2008). It appears that the students in this study do not get that kind of encouragement from their teachers, and these conditions undermine the natural process of self-determination and psychological well-being.

### ***Un-engaging teaching***

Almost all the students' in the interviewed sample mentioned that their teachers approach to teaching was not motivating. Students reported their teachers spent the majority of class time talking to the class (teacher-focused direct instruction) with little student participation. The students reported that:

Our teachers' teaching is so boring. They do not use new activities to teach. S 9

We always have the same kind of teaching. S 1

I would like to have different types of lessons. S 3

I would like to use our skills when we learn. S 21

I would like to learn by doing something; but, no opportunities available. S 14

It seems that the teachers use traditional teaching methods and techniques such as the lecture or the “talk and chalk” method.

I would like to do experiment while learn. S 12

I would like to learn using computers. S 2

I like to do activities using different learning aids. S 4

We do not like to just listen to the teachers, we like to see new things and learn.

S 19

Apparently, the teachers referred to did not use innovative teaching aids. This is linked to the section comments under the heading “Inadequate quality learning activities”. Williams and Williams (2011) state that the five key elements affecting student motivation are: student, teacher, content, method/process and atmosphere. The method or process must be creative, reassuring, motivating, valuable and give tools that can be functional in the students’ lives. Moreover, Kusrkar et al. (2011) argue that teachers should pay patient attention to students and empathise with them when they convey their lack of interest or displeasure with an exacting topic or an exacting technique of teaching. If the teacher refuses to accept negative thoughts from the students, the students tend to drop all concentration in the following lessons. Students need to feel that they are being listened to, that their thoughts are significant to the teacher, and that they can make an impact on elements of the lessons with their positive comment. It is vital not to judge when students express their thoughts.

Granito and Chernobilsky (2012) stated that students react confidently to technology and sometimes are frustrated by technology; teachers should make a conscious effort to plan activities that include some form of technological device. Thus, teachers should use different innovative teaching aids as much as possible because motivated students tend to achieve at their maximum levels, making the most of the opportunities their teachers provide. If students find their schoolwork interesting, their competence and relatedness with their teacher and peers might increase, and thus their self-determination in learning will also increase.

### *Unfriendly teaching-learning environment*

The responses of interviewed students from both school groups indicated that they encountered unfriendly (not caring) classroom environments. This was particularly true of the male and Tamil-medium students.

Primary teachers were very kind. They didn't punish us. S 1

We didn't have much to do in primary classes. Now we have lots of subjects to learn and also lots of homework to do. Different teachers teach us. So, now we are so confused in learning. S 11

In primary years, teachers knew us individually, and now some teachers can't remember our names even. S 2

According to Tamil-medium students:

Some teachers treat well for clever students only. S 7

I sense that some teachers don't like me. They think that I'm a stupid. S 12

The teacher does not seem to care, if I do not pay attention anyway. S 9

Teachers do not care about me. S 3

This situation might have evolved because of the many untrained and unqualified teachers in Tamil schools. Further, some male students interviewed mentioned that some teachers do not listen to their input and attempt to control their behaviour. Grabau (1999) argued it is important to value and respect students. Also, Fenty (1997) emphasised that understanding students and the challenges they are facing at the same time as learning, increases retention rates and the general achievement of students. Wagle (2012) conducted a study on school-related problems and found lack of teaching-learning behaviour in the lessons as one of the noticeable school-related problems that led to students leaving school early. In addition, Sagor (2003) pointed out that in respectful classrooms, teachers planned lessons that gave opportunities for students with varied learning styles, intelligence and cultural differences. Further, teachers created an atmosphere of mutual respect by preventing students from making fun of others, encouraging students to value the contributions of others, and requiring students to be considerate of the feelings of others

(Patrick et al., 2007). According to Niemiec and Ryan (2009), a feeling of belonging is closely linked with intrinsic motivation and a student's sense that she/he is liked, admired and valued by the teacher.

Research (Knesting, 2008; Wilson, 2007) suggests that caring teachers and highly regarded relationships are linked to students becoming engaged in their learning, performing at high levels, and remaining in school. Furthermore Rhodes et al. (2000) stated that relationships with teachers are especially important for early adolescents who frequently experience changes in their sense of self and struggle with their growing relationships with parents and peers.

### **Lack of intrinsic motivation**

Since students are a part of the school context, their lack of intrinsic motivation could be considered a school-related condition. Lack of intrinsic motivation is a common problem among the interviewed students. (Teachers and principals also agreed with the responses - see below).

I come to school because of my grandmother. She forces me to go to school.

S 9

I would like to earn some money. S 3

I like to come to school to play with friends. Other than that, I don't have any reason for coming school. I don't like to learn at all. S 5

I don't come regularly to school. Then teachers blame and punish me for not coming. Then again, I stay at home. S 1

Some girls, who left school early, work in garment factories and earn a good amount of money. So, I also want to do so and earn money. S 16

I like school, but I do not like learning. S 10

I do not like school, because, I do not like to learn at all. S 8

Actually, there is nothing special to come to school. I just come to school every day. My grandparents force me to come. S 7

I do not like learning. It is too hard for me to do. S 15

I do not know what I want to be; I worry about things in the future. Things I do not know about. S 14

As a whole, absenteeism and unenthusiastic behaviours were most marked in male and Tamil-medium students. The researcher observed, during the data collection period, that school absenteeism was high among most students, particularly for Tamil and male students, at almost all schools.

Research suggests that the promotion of motivational change for students in junior secondary school relies on the characteristics of the learning atmosphere (Callahan, Clark, & Kellough, 2002). Ryan and Deci (2000) argue that amotivation stems from not appreciating a task, not considering one is competent to do it, or not anticipating that the task will give the desired result. Niemiec and Ryan (2009) note that students are likely to study well and are more creative when they are intrinsically motivated, particularly on activities needing theoretical consideration. The responses of the interviewed students indicated that there was capacity for teachers to identify students who were demotivated and that steps should be taken to cultivate their well-being with tasks.

### **Influence of peers**

Some interviewed students said that they lacked motivation and engagement in learning because of poor peer relationships. This was particularly true for male students.

I don't like classmates. They hate me always. They always tell my faults to teachers. S 12

There are some classmates who perform well in our classroom in difficult subjects. But they don't like us to help. They hate us always. S 14

My friends do not like to learn. So, I also don't like to learn. They always talk about earning money. S 1

My friends always overstress about everything. I get stressed about it and can be emotional. S 3

My classmates are also not motivated in learning. There is not any competition in our classroom. So, I'm also unmotivated. S 10

Hanging out with the wrong friends affects my grades. They try to bring me down. S 15

Wang and Eccles (2013) stated that studies show that students with positive peer relationships are more behaviourally and emotionally engaged at school; this is particularly the case for adjustment to middle school across the transition (Nelson & Debacker, 2008; Wang & Eccles, 2013). Kingery et al. (2011) measured peer acceptance and friendship quality in relation to predicting adjustment across the transition to middle school and found that both these factors play a significant role in student loneliness and school involvement.

Fried and Konza (2013) believe that teachers should think about peer relations when preparing learning activities. Peer interaction gives students a better chance of increasing their sense of relatedness. Belonging refers to the sense of association with other people, a sense that comprises a feeling of being integrated with and respected by other people in the learning environment (Ryan et al., 2009). The interview results show that these least motivated students did not feel sufficiently positively integrated with their peers. This is particularly evident from the response given by S 10 in the quote above. Since, peers are not motivated they also feel unmotivated; motivation to learn might be transferred from one student to another.

### **5.3.1.2 Quality of curriculum and resources**

Under the main theme of quality of curriculum and resources, six sub-themes emerged: inadequate quality learning activities, difficult subject matter, difficult and excessive homework, regular tests, inadequate classroom resources, and inadequate quality teaching-learning resources.

#### **Inadequate quality learning activities**

Students interviewed mentioned that they did not have quality learning activities to pursue within their classrooms. Low quality learning activities lead to a low level of intellectual challenge. This sentiment was expressed by male students' more than female students.

I like learning science. But there are not any activities that we can do. S 11

I like doing activities. We have activities only in science. They are also very limited. S 3

In primary years we did lots of activities. Now not like that ... Learning is so boring. S 12

Nothing to do with ourselves, the teachers teaches everything; we have to just listen to them. S 14

I do not like to learn by listening. I want to do something. S 4

The teachers spend too much time talking or reviewing a subject. S 15

We are not being allowed to participate in class or ask questions. S 2

The following are examples of a common criticism expressed by both genders:

We want to learn by doing something. But we don't have such activities in our classrooms mostly. So, we feel bored to learn. S19

Sometimes I don't like to listen to teachers. Listening is boring. I don't understand what they teach specially in English, science and mathematics. S 17

Always teachers ask to do the exercise in the text books. I hate doing that always. No any difference. Always doing the same thing is boring. S 9

Always we have only one type of assignments. S 13

We don't have enough opportunities to discuss within the classroom; always teacher ask questions from clever students. S 7

There was no notable difference among the responses in relation to ethnicity. Students were often reluctant to participate in classroom interactions for fear of giving wrong answers and/or being laughed at by peers. By planning group work, teachers can foster a supportive community in the classroom and provide the less confident students with a less threatening situation (Hinde-McLeod, & Reynolds, 2007).

Anderman and Leake (2005) suggest that, even if teachers cannot give free reign to their students, providing frequent choices in activities and assignments would increase students' sense of autonomy since people will be intrinsically motivated to carry out tasks in which they have an inherent interest or tasks that are innovative, challenging or have artistic value (Ryan & Deci, 2000a). In other words, activities that are not intellectually challenging diminish students' motivation.

For activities that are not intellectually challenging, the principles of SDT do not apply. Legault et al. (2006) indicated that students' autonomy could be increased by providing opportunities for students to take initiative and by seeking and respecting their opinions. Encouraging students to take accountability for their own learning does not mean that teachers abandon their students completely to their own plans; the nurturing of autonomy still needs structure and direction but must allow students to take responsibility. Eccles and Roeser (2011) reported that many young adolescents do not sense that type of teaching practices. This situation might affect young adolescents in different ways depending on their school experiences and fundamental and developmental needs.

By providing opportunities for student group work, their sense of relatedness is increased. Providing opportunities to connect with others increases relatedness (Legault et al., 2006). According to Deci et al. (1991), support for relatedness involves enhancing chances for peer acceptance. Moreover, incorporating activities that create opportunities for students to work with their peers, such as cooperative learning will increase students' sense of belonging (Anderman & Leake, 2005). If a task is usual boring, and regarded as unimportant, amotivation results (Legault et al., 2006). Thus, as Ames (1992) stated, in order to increase the internalisation process, the task design should highlight the meaning or relevance of the activity. Accordingly, teachers can create personal meaning in activities by understanding students' interests. Engagement is improved by offering activities which are relevant to students' lives, and are experienced as attractive and vital (Deci, 2009).

In this study, the majority of male students stated that they did not get quality learning activities during their school time, and both Sinhala and Tamil-medium students gave similar responses. It is evident that the least motivated students do not feel that they get

sufficient quality learning activities in their classrooms. This situation is linked with inadequate classroom resources, inadequate quality teaching-learning resources, and lack of quality teaching. This will be discussed later. Lack of quality learning activities may then be responsible for a reduction in their authentic learning and also their autonomy, competence and relatedness, and, thus, it may cause a reduction in their intrinsic motivation towards learning.

### **Difficult subject matter**

Almost all the students interviewed reported that they had numerous difficulties with a number of subjects, particularly mathematics, science and English. Sri Lanka's national curriculum is considered unsuited for the diversity of students and generally accommodates to the most capable students (World Bank, 2011). Most students reported frustrations with the curriculum.

I hate learning science, mathematics, and English. S 3

When I have mathematics and English double periods, I don't come to school.

S 2

Mathematics and English are too hard for me. I don't like to learn those. S 21

Always I get low marks for mathematics. So, I hate learning mathematics. S 8

I didn't come for last term-end test for mathematics and English. I was blamed by teachers. But those subjects are really a pressure for me. S 11

Learning those subjects is not really interesting for me. They are too hard. S

22

According to the teachers' and principals' responses, most of the schools surveyed did not have qualified teachers for mathematics, science and English, particularly in the Tamil schools. Balasooriya (2012) and the World Bank (2011) found that rural schools, including estate schools, find it particularly difficult to recruit and retain teachers in English, science, and mathematics. Moreover, MoE et al. (2009) identified overloading of the school curriculum as one of the factors contributing to dropout. In addition, Jayaweera

and Gunawardena (2013) found that lack of teachers for a number of subjects was one of the school factors likely to lead to dropout. Arunatilake (2005) also attributed the lower percentages of Sri Lankan Tamil, Indian Tamil and Muslim students participating in education compared to Sinhalese students to teacher shortages in Tamil-medium schools.

Eccles and Wigfield (2002) stated that students made more effort on tasks in which they do extremely well, suggesting that they will be more motivated to study subjects in which they gain a feeling of achievement. Gottfried (1990) conducted a longitudinal study of students' motivation and achievement in mathematics and reading. Motivation for studying mathematics was found to be largely predicted by previous achievement. Further Latif, Choudhary and Hammayun (2015) found pressure of study the most important reason for student dropout in Bangladesh. Students who are excessively controlled not only lose initiative but also do not study well, particularly when studying is difficult (Benware & Deci, 1984; Grolnick & Ryan, 1987).

The interviewed students indicated they were not motivated to learn the difficult subjects and neither are they engaged in these subjects. Interview responses also indicated that the curriculum is overloaded. Overall, students' responses suggested they found they could not become competent (master) in those subjects and, thus, their self-determination in learning is diminished.

### **Difficult and excessive homework**

Almost all students interviewed expressed a dislike of homework. The general opinion was that the level of homework tasks was far too difficult to enable students to successfully complete them. This was true of the entire student sample and it was also expressed by the teachers.

In primary years, we didn't have much homework to do. But now we have lots of homework to do. S 20

I don't know how to do some tasks, particularly in mathematics and English. S 13

If I ask from teacher over and over again he blames or punishes me. So, I hate doing homework. S 3

When I don't complete homework, I don't like to come to school. S 9

In the same day we have to do homework related to three subjects. So, we are unable to complete them on time. S 17

Most students indicated a frustration with the level, the amount, and the high level of expectations of homework. Katz et al. (2009) conducted a study to investigate students' desires, teachers' assistance and student motivation for completing homework. They found that teachers' assistance may be more important for students who feel they have a higher level of need. Moreover, teachers' assistance with students' psychological needs was significant for their adaptive motivation for completing homework, regardless of the level of need they expressed.

Students said they had an excessive amount of homework to do and thus they cope less well with homework and they are demotivated in learning. Research has found that deadlines, directives and pressured evaluations reduce intrinsic motivation (Ryan & Deci, 2000a). Similarly, the employment of extrinsic rewards, the burden of closing dates and an emphasis on assessments reduce a sense of self-determination and often lead to diminishing intrinsic motivation (Vansteenkiste et al., 2004). Thus, Anderman and Leake (2005) suggested teachers should teach students how to break the tasks into small sections. When students complete the sections, they see their progress and their confidence increases with each step.

Oginsky (2003) found that giving students a choice in their assignments (a kind of homework) improved intrinsic levels of motivation for middle school students. Suarez (2007) implemented a tiered instructional programme and, as a result, middle school maths students' motivation and performance increased. Students were able to choose which level of assignments they wanted to complete. Suarez labeled the levels green, blue, and black. The green choice was set at a level that exhibited proficiency, and the blue and black represented levels above proficiency. The combination of choosing tasks at their skill level and being able to make decisions in relation to their learning increased the students' responsibility for their learning. Teachers should be able to enhance motivation by having high expectations for completing homework, attendance, behaviour and educational achievement. Stirring student interest in the classroom whenever possible

supports autonomy (National Research Council, 2004). However it seems students in this study did not have the skill and ability to do homework. Nor do they get sufficient motivation from their teachers to complete their homework. Ultimately, that appears to cause a decrease in students' motivation and engagement in learning. This might be a reflection of the high numbers of untrained teachers in low socio-economic districts in Sri Lanka.

### **Regular tests**

Most of the students interviewed said they disliked having regular evaluative tests. This applied equally to both gender and ethnic groups.

In our classroom, we have monthly tests for all the subjects. So, we feel confused. S 18

We always have tests and I get low marks for them. So, I do not like to come for tests. S 8

For term tests I get low marks for all the subjects. I hate having so many tests within one year. S 6

When teachers tell the individual marks of the students in front of others, I feel embarrassed due to my low marks. S 11

Niemiec and Ryan (2009) found that in the US and Japan, in real learning settings, evaluative forces decreased and autonomy support strengthened students' intrinsic motivation for learning. For instance, Tsai et al. (2008) noted that external pressures may elicit a major negative mood in students and influence both their interest and the learning condition in a negative way. Research indicates that high-stakes testing tends to cause teachers to feel less autonomous and, as a result, act in more controlling ways towards students (Roth, Assor, Kanat-Maymon, & Kaplan, 2007).

Moreover, a student may learn for an examination to get an excellent grade or to avoid being laughed at by peers. This kind of motivation is called external regulation: the smallest amount of the independent type of extrinsic motivation (Niemiec & Ryan, 2009). According to Williams and Williams (2011), examinations that are more challenging or

difficult than work the students have previously encountered in the classroom will have negative impacts on their motivation. Therefore, examinations ought to be based on lesson objectives, and should not surprise students with new concepts or activities.

Results from the interviews indicate that regular evaluative tests diminished students' intrinsic motivation for learning. Interviewed teachers' responses also noted that most of the students in their classes (not only interviewed students) did not attend classes when the monthly tests were held and, if they did, their performance was very low.

### **Inadequate classroom resources**

The majority of interviewed students states that their schools had insufficient classroom resources; this was particularly true for Tamil-medium schools. Therefore, the students did not encounter intellectually challenging learning experiences within their classrooms.

There are four classrooms located in the same building without partitioning therefore our classroom is too much noisy; so, very difficult to concentrate on learning. S 2

We don't have sufficient chairs or desks. S 8

We have very short desks and chairs; they are very inconvenient. S 7

We don't have a proper blackboard in our classroom. S 15

When it rains our classroom gets wet. So, during that day we are unable to learn. S 14

Our classroom floor is damaged, so it is so hard to learn. S 16

Most students complained about merged classrooms and lack of chairs and tables, especially in the Tamil schools. Niemiec and Ryan (2009) stated that learning tasks taking place in the classroom increase the perceived competence of students. Thus, in the schools lacking classroom resources for motivational learning activities, such as group work, students were unable to practise and master certain competencies.

Akomolafe and Adesua (2016) emphasised that, if resources are available and carefully utilised to fulfil students' needs, this will always assist students' learning interests and lead to high achievement. It appears that, without having sufficient classroom resources (separated classrooms, chairs, desks and blackboards, etc.), teachers were unable to provide intellectually challenging learning tasks, and thus increase students' competence towards self-determination in learning.

### **Inadequate quality teaching-learning resources**

The interview responses of both male and female students suggested that the majority of schools, particularly Tamil schools, did not have sufficient and quality teaching-learning resources. Most of the schools did not have a science laboratory, home science room, library, computer facilities, sports equipment, and musical instruments

We have never seen a computer in our school. S 4

Even though our school has some computers, we are not allowed to use them.S  
6

We don't have a playground. We like to do sports. But we don't have sports  
equipment. S 9

We do not have musical instruments in our school. S 5

We would like to read books, but there is no library in our school. S 8

Furthermore, insufficient extracurricular activities were provided. Joubish and Khurram (2011) conducted a study to determine the factors influencing dropout rates in government schools of Karachi, Pakistan. They found lack of co-curricular activities as one of the reasons. Chugh (2011) conducted a study on dropout causes in secondary education. She studied dropout rates of children living in Delhi slums attending 33 schools and identified lack of infrastructural facilities in the schools as one of the reasons for dropping out of school early. In addition, Wagle (2012) conducted a study on dropout rates of children from schools in Nepal. The study indicated that school-related problems, such as poor infrastructure, was a noticeable contributor to school dropouts.

Wlodkowski (1999a) suggested that teachers could create situational interest by using environmental conditions, such as surprise, novelty, computers, role-playing and simulation, various forms of media, and uncertainty. Ryan and Deci (2000) note that intrinsic motivation will be stimulated only when tasks are offered that have inherent interest for the person, or that are innovative, courageous, or have artistic importance for the individual. If the physical amenities are accessible, sufficient and successfully utilised, students' interest can be focussed and maintained, leading to high levels of achievement in public secondary schools students (Akomolafe & Adesua, 2016).

The interview data appears to show that the students in this study did not have access to relevant resources for making their learning a quality and an interesting experience, and thus they did not have enough opportunities to become intrinsically motivated in learning.

### **5.3.2 Perspectives of teachers and principals**

The thematic analysis of teachers' and principals' interview responses revealed two main themes in relation to the school conditions: (1) quality of participants in the system and (2) quality of curriculum and resources. For each theme, a set of sub-themes was identified and is presented here together with quotes.

#### **5.3.2.1 Quality of participants in the system**

Under the main theme, quality of participants in the system, three common sub-themes emerged from both teachers' and principals' responses: (1) students' lack of intrinsic motivation, (2) influence of peers, and (3) teacher absence. Other than those three common themes, from the teachers' interviews "apathetic leadership", and from the principals' interviews "lack of quality teaching" also emerged separately.

##### **Students' lack of intrinsic motivation**

Almost all teachers and principals mentioned that a considerable number of students did not attend school regularly (the researcher checked students' attendance records and confirmed this was the case) and those that do not attend school were not motivated to learn.

Almost all the teachers noted that students who show low motivation for learning tended to present unfinished class work and homework, were involved in bullying, lying, tardiness and failure to listen. Moreover, they stated that:

Actually, I cannot motivate them at all. They do not do anything at class.

Teacher (T) 1

They do not complete homework. They just come to school. They do not like to learn. T 8

They tell lots of lies for not coming to school. How can they continue their learning without coming continuously? T 3

They have lots of pressures in doing tests and homework. T 4

Students do not have a look at their notebooks. Even students do not have future ambitions. T 2

They always get low marks for tests. T 11

Principals' stated:

Boys do not bring textbooks to the school. They just come to the school.

Principal. (P) 1

They cannot realise the classroom demands; and, also, they are uncertain about the future. P 11

Actually, they do not know the value of education. They want to earn money.

Students' low attendance is a major problem in our school. P 4

Moreover, the majority of teachers said that the students who failed to remain on task and certain other students intentionally disrupted learning. Even though schools provided meals for students, they did not come regularly. Overall, the majority of students failed to listen, produced unfinished work, had poor or bad attitudes, were not allowed to participate in class or ask questions, and did not have consistent outcomes in their learning. It should be noted that teachers did not suggest that they felt any responsibility

for the lack of motivation of their students and they seemed to suggest that it was all the “fault” of the students. The principals noted:

Students and parents both believe that there is no value of education. Boys would like either to buy a three-wheeler (to transport people) or join to the army force. Girls would like to join to a garment factory. P 10

Lots of students tell lies regarding their absence to school, our school is one of “Sapiri” (facilities to be fulfilled immediately by the government) school in this area. Therefore, students get uniforms and shoes twice a year by the government. But still students are not motivated in learning. P 6

When there is a wedding at one of their relative homes in the estate, they do not come to school for one month. It seems that they do not want to learn. This is especially true for male students. P 2

Both teachers’ and principals’ stated that the majority of students in the low socio-economic areas would like to earn money by doing gem mining, chena cultivation, going to markets with their parents to sell their crops, doing odd jobs, working in the banana export companies, farming, construction work etc. rather than learning.

The responses of teachers indicate that they do not like low self-determined students, and they have little desire to spend time with them; this accords with findings by Pelletier & Vallerand (1996). To encourage students’ interest in learning requires them to value their education and receive acknowledgement of personal capabilities (Thaliah & Hashim, 2008).

### **Influence of peers**

Both teachers and principals highlighted the negative impact of peers on students’ motivation and engagement in learning, particularly for male students:

Students do not have competitive friends. They all are in the same level. So, there is no competition in the classroom. T 2

“Some of their friends go for work with their fathers and earn money. So, they also want to imitate them.” T 3

“If their friends perform badly in education, they also want to do the same.” T

11

“We cannot get them for cooperative learning at all; they do not like to do team work properly.” T 10

The principals said:

They want to deal with older students. They do lots of misbehaviours with them. P 12

They get together and do lots of misbehaviours. P 8

Since our village is a poor one, lots of robe-less monks became as students in every classroom, so, their behaviour negatively impact to all students. P 6

Many studies have been published on the influence of peers on motivation and engagement in learning. As stated by Wang and Eccles (2013), research has shown students with positive peer relationships are more behaviourally and emotionally engaged at school. Kingery et al. (2011), when measuring peer acceptance and friendship quality for predicting adjustment across the transition to middle school, found that both these factors play a significant role in student loneliness and school involvement. Battin-Pearson et al. (2000) stated that young people who connect with anti-social peers might tend to become disconnected from educational activities and then ultimately leave school.

From the literature, it is evident that cooperative learning is seen as a way of increasing students' experience of relatedness at school (Fried & Konza, 2013). Students' sense of belonging flourishes when they experience others paying attention and reacting to them. When autonomy, competence and relatedness are satisfied, students are likely to be intrinsically motivated and energetically engaged in their studies.

The responses of teachers and principals indicated that the students did not feel a sense of belonging for learning because of their negative peer relationships. This was evident from one of the principals' responses about the robe-less monks' behaviours negatively impacting students' behaviours. The researcher observed this behaviour first hand when

collecting data because the students behaved badly in the classroom. Even the teachers could not manage the classroom because of their mal behaviours. Therefore, it seems that school personnel need to facilitate students' relatedness by giving more learning opportunities for group work to develop social skills.

### **Teacher absence**

Teacher absence (both lack of teachers and absent teachers) was a common issue identified in the interviews with teachers and principals in almost all the schools. This was particularly significant for Tamil schools. The teachers interviewed noted there was a great shortage of teachers and also much teacher absenteeism.

Most of the time my classroom students have off periods due to teacher absence. T 3

Mathematics teacher went on maternity leave before six months. Still no teacher was assigned. T 4

The principals noted:

Most teachers take sudden leaves without prior informing. P 4

We do not have teachers for mathematics and English. P 5

Teachers come from faraway places. So normally they are absent certain days in a week. P 1

Most principals complained there were not enough teachers for mathematics, science, information technology and aesthetic subjects in most of the schools. The available teachers were also absent for certain days in a week. Clearly, without teachers for those subjects, students' sense of competence will not increase and, ultimately, their self-determination in learning will not increase. Arunathilake (2005) found that many schools, especially in remote areas in northern and eastern provinces and Estate sector in Sri Lanka have difficulty retaining teachers. At the same time, she explains that the problem is severe for the subjects of English, science, mathematics and Tamil-medium teachers, but the popular schools in urban areas attracted the best graduate teachers. The reasons for

employment in the less-well off regions vary from being less qualified, as a punishment transfer, or transfer on political grounds. Such teachers were mostly not psychologically prepared to give a better service to these schools. Without having competent teachers to teach those, students were unable to increase their competence and thus their intrinsic motivation towards learning.

### **Apathetic leadership**

The responses of teachers and principals to the interview questions indicated that their preference would be to teach in schools in urban areas rather than the Type 2 schools that were the subject of this study.

Many of the responses from both medium teachers indicated that principals do not manage their schools diligently.

Our principal does not want to do anything to increase students learning or to stop dropping outs. T 8

He does not want to get any resources for the school. He is planning to get a transfer to another school soon. T 6

He does not like to initiate new programmes within the school. T 3

We have only three computers at our school. Our principal does not allow students to use computers. He uses those for his personal needs. T 5

We do not have sufficient quality inputs (the Provincial Departments of Education allocate money to get quality inputs for each school annually) for our classrooms. They finish at the end of the first term. For the rest of the two terms no any quality input to be used, so, the principal does nothing to get more funds. T 4

Mathematics tools are too big. So, it is very hard to manage. Students like to show their talents. But, there are no opportunities to show them. When we report that to principal, he does not take an immediate action. So, without having resources, how can we increase students' motivation towards learning?  
T 12

Almost all Sinhala and Tamil-medium school principals in this study appeared disinterested or showed little interest in being a principal in these kinds of schools. This was particularly significant in Tamil schools.

I do not get any support from either school internal or external community. Sometimes, I have to spend my own money for school activities. I am unmotivated in being a principal of this school. P 1

We have got lots of stress. Parents, teachers and institutions make problems. We get very low salary also. P 5

We do not get transport facilities or bus fare to go here and there to make the things done for schools. P 12

The community looks at the school administration as the source of knowledge, skills and attitudes that are required by the society; therefore, schools are expected to design with interventions and services to stop students dropping out of school (Mphale, 2014). Consequently, principals have a huge responsibility to retain students at school.

Guay and Vallerand (1996) point out that SDT identify three fundamentals necessary for learning: competence, relatedness and autonomy. Each can be promoted by teachers in classroom settings. School leadership impacts significantly on students' learning. Hattie (2009) notes that the successful principal produces an atmosphere of psychological protection for study and a centre of dialogue on student education. The school leadership of these schools did not show such a supportive relationship with teachers and students and this negatively impacted the potential to increase students' self-determination in learning.

### **Lack of quality teaching**

Lack of qualified and experienced teachers was a common issue identified in the interviews in almost all the schools. This was particularly significant in Tamil schools (see Table 5.3). Students' examination results show how feeble they are in the subject matters that teachers are feeble in (Perera, 2011; World Bank, 2011).

**Table 5.3: Teacher distribution by province and qualification**

Province	Number of teachers				Total
	Trained graduates	Graduates	Trained	Untrained	
Western	12,095	6,805	21,956	495	41,351
<b>Central</b>	6,692	3,220	18,632	<b>2,380</b>	30,924
Southern	7,083	4,494	17,548	367	29,492
Northern	3,387	1,626	8,420	746	14,179
Eastern	3,591	2,590	13,777	663	20,621
North Western	7,004	2,974	16,088	1,477	27,543
North Central	2,326	2,520	8,774	1,458	15,078
<b>Uva</b>	3,136	3,357	10,568	<b>1,818</b>	18,879
Sabaragamuwa	4,677	3,366	12,937	840	21,820
Total	49,991	30,952	128,700	10,244	219,887

(Source: Ministry of Education, 2011).

Most of the teachers in Tamil schools were qualified to only General Certificate in Education (GCE) – advanced level, but did not have a degree and were not formally trained for teaching. The allocation of teaching staff seems to be extremely unfair, with extra English, mathematics and science subject teachers in urban schools but deficiency of these in rural and estate schools. There are instances of Tamil and Sinhala subject teachers being replaced by English, mathematics and science teachers (Raju, 2016). Therefore, the quality of teaching they provided was problematic.

I'm also unhappy in teaching in this kind of a school. T 1

There are lots of students who cannot write letters. I help them to improve their writing skills. I discussed with the other teachers who teach at our class. Some have negative attitudes. They are in opinion that we cannot improve them. It is a useless attempt. T 6

The training opportunities for teachers are very low. T 3

Reeve et al. (2004) found that trained teachers displayed significantly more autonomy supportive behaviours than untrained teachers. But, clearly, most of the interviewed teachers did not have mastery of the subject matter they were teaching. According to the principals:

In our school we do not have a mathematics teacher. So, I teach mathematics.  
I do not have training on teaching mathematics. P 2

I want to cover the syllabus. So, I use a teacher to do that. I cannot think about  
their proficiency in teaching. P 8

Teachers are unmotivated. They just come for the job. Everything is  
unsatisfied in here. Most of the teachers also do not have targets. P 1

Teacher transfer mechanism is not good. Some teachers remain in the same  
school for number of years (even 30) and become more interfering. P 12

I know some teachers pay attention only for competent students. But, the  
problem is there is only handful of competent students in a single class. P 3

Specialist teachers expect and avoid trouble and disorder, and they have a broad range of expectations (Cellier, Eyrolle, & Marine, 1997). According to Hattie (2003), experts can perceive when students' attention wanes and they do not comprehend, since these teachers have quick and positive reactions to students. Also, teachers' negative attitudes appear to impact students learning. While working towards giving their students' knowledge and managing their behaviour, teachers should be role models (Ulug, Ozdenb, & Eryilmazc, 2011).

Teachers said:

I do teaching because I do not have another job to do. T 3

Teaching for this kind of students is very stressful. T 5

Students do not engage in learning. They have lots of family issues. I cannot  
motivate them at all. T 2

The principals said:

Some teachers do not want to cover the syllabus. P 1

They take lots of leave ... I know they punish students ... Some teachers are  
not friendly with students. P 4

Their teacher-student relationship is minimal ... They are also not motivated in teaching ... They also do not have targets. So, how can they guide students to have life targets? P 5

The researcher noted that some of the teachers came to school very late without informing to the authority and some were on sick leave frequently for a number of days in some schools. According to Athurupane (2009), non-attendance in Sri Lanka is considered to be concentrated amongst teachers allocated to rural schools. As elaborated by Athurupane, Savchenko, Shojo, and Larsen (2014), in 2012, teachers took an average of 30 days over and above the designated school holidays. Among provinces it varied between 23 and 33 days. It is assumed that all leave days were taken in the school year, and thus teacher non-attendance was estimated at 15% of the school year.

Joubish and Khurram (2011) conducted a study to determine the factors influencing dropouts in government schools of Karachi, Pakistan. The study found teachers' negative attitude was one of the factors. According to Hudson (2015), when students relate and feel connected to teachers, they are more likely to internalise and adopt the values involved in learning. They also tend to willingly engage in less attractive learning activities as opposed to those who experience negative attitudes by teachers. Given teacher attitudes in the schools in this study, it is not surprising that students' intrinsic motivation might be diminished.

### **5.3.2.2 Quality of curriculum and resources**

Under the main theme of quality of curriculum and resources, three sub-themes emerged from both teachers' and principals' interview data: (1) Difficult subject matter, (2) inadequate classroom resources, and (3) inadequate quality teaching-learning resources.

#### **Difficult subject matter**

In the opinion of almost all principals and teachers interviewed, the majority of the students had little motivation for learning mathematics, science and English.

Teachers stated that:

Most of the students hate learning mathematics and their achievement is also very low. T 4

They cannot cope with mathematics, science, and particularly with English. T  
11

Principals stated:

I think the subject matters of these subjects are too heavy for students and they  
are not engaged properly in those. P 3

I think teachers do not teach properly those difficult subjects. P 12

In each year students' performances for mathematics, science, and English is  
very low. P 1

Further principals perceived that some of the teachers, who taught these subjects, did not listen to student input and they controlled students' behaviours. The principals also reported that teachers felt stressed having to teach these subjects. As revealed by Liyanage (2013), poor performance in mathematics and science and over-loaded curriculum are major educational issues in Sri Lanka. Also, Pelletier, Seguin-Levesque and Legault (2002) explained that teachers experience greater pressure when attempting to fulfil a compulsory curriculum.

Niemiec and Ryan (2009) noted that students tend to study better and are more innovative while intrinsically motivated, particularly on activities needing theoretical comprehension. Even though lessons might not always coincide with their interests, students with a higher personal interest for a subject tend to have constructive learning experiences in the relevant lessons (Tsai et al., 2008).

### **Inadequate classroom resources**

Both principals and teachers claimed the schools had sufficient classroom resources; this was particularly the case for Tamil schools. These responses support the students' criticism about the lack of resources.

Teachers said:

We do not have enough facilities within the classroom to conduct group  
activities. Even, we do not have enough chairs or desks. T 5

Actually, in our classroom we are very short on chairs ... As a geography teacher, I would like to do group works. I know students are also like to do. But we do not have facilities for doing such. T 4

We do not have separate classrooms. In one building there are four classrooms without partition. So, it is very difficult to have group work here. T 2

The principals said:

Actually, our school do not have even basic facilities for teaching-learning process. P 2 and P 5

I informed relevant authorities to get the resources to our school; but I did not get any response so far. P 4

Ajayi and Yusuf (2010) claimed that poor classroom planning, laboratory planning, and library planning may have a negative effect on students' learning outcomes while a school with better classroom planning, laboratories planning and library planning may enhance better students' learning outcomes. Niemiec and Ryan (2009) explained that classroom learning tasks develop students' perceived competence. The schools in this study did not have enough classroom resources to provide more learning activities. For that reason, students were unable to practise and master certain competencies. Ultimately, this may have led to a decrease in their motivation and engagement in learning.

### **Inadequate quality teaching/learning resources**

Both principals' and teachers' responses acknowledged that the majority of schools, particularly the Tamil schools, did not have a science lab, home science room, library, computer facilities, sports instruments, music instruments etc. This response corresponds to the students' response in this regard.

Teachers noted the following:

I'm teaching Geography. I need to refer some books for doing activities. But there is no library in our school. At least we do not have a globe in our school.

T 1

I'm the music teacher in this school. We do not have instruments to teach. This is very unhappy situation in this school. T 3

I'm the science teacher in this school. We do not have a science lab. We do not have a piece of sodium to do an experiment in Science. T 5

We do not have a science lab. I put all the science materials in to a cupboard. They are older than twenty years. So, chemical reactions do not happened. So, how can we do group works? T 2

#### Principals added:

The allocated money is not sufficient for purchasing quality inputs for our school. P 1

Though, I have informed the relevant authorities about the lack of resources in our school, they keep silent without doing anything. P 5

Yara and Otieno (2010) studied teaching/learning resources and educational achievement in mathematics in secondary schools located in the Bondo District in Kenya. They investigated the impact of teaching/learning resources on educational achievement in mathematics. They found the provision of government financial assistance for the purchase of mathematics learning/teaching resources was very low. The researchers recommended that teachers be offered stimulating and diverse resources and visual aids to stimulate the students' interest and enhance their determination to study. Kamau and Ruth (2016) declared that the atmosphere of the school plays a key role in teaching and learning in schools. Therefore, the schools should be well equipped with teaching materials as these enhance both teacher and student performance.

Niemiec and Ryan (2009) claim that learning activities that expand students' perceived competence comprise demanding activities. Activities should allow students to use the tools they require to do well, and teachers should provide encouragement that focuses on student success. In relation to the situation of the schools in this study, it is difficult to see how students could adequately develop competency in certain areas. As a whole, due to lack of classroom resources and lack of quality teaching-learning resources, students were

not sufficiently intellectually challenged and/or sufficiently engaged in activities in their lessons to be motivated and engaged in learning.

As a whole, considering the students' responses, it is clear that it is mostly the teachers' behaviour and the lack of resources that had the biggest effect on the students' motivation. In contrast, teachers and principals believe that students' lack of motivation and context resources impact on their motivation and engagement in learning. The principals' however, confirmed that they understood that teachers' behaviour impacts students' motivation and engagement in learning. Teachers, in turn, had a real sense that there was a lack of school leadership and that may have had an effect on students' motivation for learning.

## **5.4 Motivational strategies taken to increase students' motivation and engagement in learning**

Since all schools had many at-risk students (who showed low levels of performance), it was worth obtaining information to understand the motivational strategies employed by the schools. This section covers research question seven: What motivational strategies have been taken by the schools to increase students' motivation and engagement in learning?

### **5.4.1 Students' perspective**

The demotivated students claimed that some of the schools had taken limited actions to increase their motivation and engagement in learning; this was particularly the case in Tamil schools. Three themes were identified from these responses: (1) raising parental awareness, (2) conducting extra classes, and (3) educational trips. These cannot, however, be claimed as direct strategies taken to increase early adolescents' motivation and engagement in learning.

#### **5.4.1.1 Raising parental awareness**

Both Sinhala and Tamil-medium students' responses said that when they performed poorly in term tests, parents were asked to meet with the class teacher. The parents were then mostly blamed by the teachers for their children's poor performance.

Last term my marks were very low for all the subjects; so, my mother was asked to come and class teacher blamed at her. S 2

I do not like to come to school. Therefore, I am absent from the school most of the times. So, my parents were asked to come to the school and give an explanation to that. Still I do not like to come to school regularly. S 4

According to principals' and teachers', most of the students' parents often have low literacy levels and do not value their children's education. In addition, students reported that their parents did not support their education as they would have expected. Therefore, it appears that increasing parents' awareness of the importance of education may be a difficult and perhaps useless task in low socio-economic context. Consequently, the schools should take responsibility for implementing strategies to increase student motivation and engagement with the support of the wider school community.

#### **5.4.1.2 Conducting extra classes**

According to the interviewed Sinhala-medium students' responses, only two schools have conducted extra classes for difficult subjects.

We do not have a mathematics teacher in our class. So, our science teacher conducts extra classes for us during weekends. S 21

When we have term tests, some of our teachers conduct extra revision classes for us. S 13

Sometimes, after the school we have some extra classes. S 22

Even though students claimed that extra classes were a motivational procedure undertaken by their teachers, the extra classes could be seen as a means for improving academic performance rather than motivation for learning, as once the tests were completed, there seldom any further help given. This kind of motivation, external regulation, is the least autonomous form of extrinsic motivation.

#### **5.4.1.3 Educational trips**

Almost all students interviewed in both medium schools noted that their teachers take them on educational trips to visit different faraway places in Sri Lanka. Going on

educational trips is related to increasing students' authentic learning and it is useful to increase students' relatedness. Therefore, this could be claimed as an autonomous type of extrinsic motivation. The least autonomous form of extrinsic motivation is referred to as external regulation, by which a person gets a reward (Niemic & Ryan, 2009).

## **5.4.2 Perspective of teachers and principals**

The thematic analysis of teachers' and principals' interview responses revealed two themes in relation to the motivational strategies that had been taken to increase junior secondary students' motivation and engagement in learning: (1) raising parental awareness and (2) individual support. A third theme also revealed: "short term initiatives".

### **5.4.2.1 Raising parental awareness**

Since all of the schools in this study faced high student absenteeism, most of the principals and teachers had taken action to make students' parents aware by conducting parent-teacher meetings. For the most part, parents did not accept the offer. Parents did not appear to value the education of their children. This was particularly true for parents of Tamil-medium students. According to the teachers:

When I meet some parents, I asked the reason for not coming for the meeting. They just smile and do not say anything. T 4

Most of the parents do odd jobs. If they come to the meetings, they do not get money. T 2

Most of the parents do not know the value of education. They just send their children to school. They do not want to see their progress. T 5

The principals commented:

Most of the students' parents are drinkers (who often drink alcohol) spend money mostly for that purpose and they do not come to school to know about their children's progress in learning. P 3

Their parents pick tea leaves in estates, so, they get daily income, if they take a leave they do not get money on that particular day. P 5

Their parents' have low literacy levels. They do not value the education. So, they do not come for the meetings. P 1

Hardre, Sullivan, and Roberts (2008) suggested that teacher and family assistance are necessary at both the school and the society level for enhancing achievement in rural schools. According to Ryan, Stiller, and Lynch (1994), students who experienced close relations with and care from parents and teachers more completely internalised the regulation for constructive school-related behaviours.

It could be asserted that relationships between these schools and their wider school communities were minimal, (particularly in Tamil schools). Further it appears that, although schools had taken actions to make parents aware of students' low performance and their absenteeism, these had not been successful.

#### **5.4.2.2 Individual support**

The majority of Sinhala-medium school teachers and principals mentioned that they had counselled students who had faced problems. According to the teachers:

I do practicals as much as I can in Science. So, I'm able to help weaker students. T 7

I give more exercises to weaker students. I conduct an extra class for students who cannot read well, but they do not like to do such. T 12

I give examples of world winners who won the life under difficult circumstances and try to improve their self-confidence always. T 9

Principals noted:

Some girls have problems regarding sexual abuse. We counsel them to continue the education. We do not have a counselling teacher at our school. But we do the best as we can. P 6

Some students have problem with peers. They always fight with each other. So, we bring them to the principal office and advice. P 11

Most of the students have family problems. We encourage them to learn, but they do not change their behaviours. P 8

Teachers should be able to promote an interested learning atmosphere that facilitates adolescents' developing cognitive, social, individual, and emotional desires by offering a progressively more enlightened and demanding curriculum, lively and appropriate teaching, high-quality relationships, and opportunities for investigation (Eccles & Roeser, 2011; Jackson & Davis, 2000). It seems that, even though most principals and teachers claim that they provided individual support to students, they had not been successful in increasing intrinsic motivation towards learning, as supposed by the students

#### **5.4.2.3 Short-term initiatives**

Some of the schools have initiated short-term programmes to increase students' achievement and prevent school dropout, particularly in Sinhala-medium schools. Examples of these initiatives include offering extra classes after school and during weekends, conducting counselling sessions using experts, improving basic writing and reading skills programmes, giving rewards to students, having progress review meetings, and doing past papers and revision. According to the principals:

Even though, we do not have money, we had a small prize giving ceremony last year. We do not have well-wishers. But that was successful. P 7

We cannot bring our students up to the expected level. Actually, we try to improve their basic reading and writing skills. So, we conducted a programme. But it was not successful as we thought. P 11

Some non-government organisations and zones of education helped to increase the education in our schools; but the attempt is also not successful due to various reasons; mainly, negative attitudes of teachers and parents. P 12

Eccles and Roeser (2011) contended that schools need to adapt social backgrounds that will continue to stimulate junior secondary students' interest and engagement as the students get older. Although a few principals had taken action to increase their students' motivation and engagement towards learning, those initiatives were short-term. They do not have proper mechanisms and also cannot be considered as motivational strategies.

From the responses of students, teachers, and principals it is evident that some schools had introduced initiatives to increase students' motivation and engagement in learning. Those strategies were also mostly taken by the Sinhala-medium schools and were lacking in Tamil-medium schools. Nor can those initiatives be considered as intrinsic motivational strategies.

## **5.5 Suggestions for improving students' motivation and engagement in learning**

In this section, suggestions made by students, teachers, and principals to increase students' motivation and engagement in learning will be discussed.

### **5.5.1 Students' suggestions**

From the interviewed students' suggestions (both male and female), four themes emerged: (1) high-quality teacher-student relationships, (2) quality learning activities, (3) increasing quality teaching-learning resources, and (4) student self-improvement needs.

#### **5.5.1.1 High-quality teacher-student relationships**

The majority of interviewed students from both medium schools noted:

Teachers should teach us well, if I cannot understand something, they should allow us to ask questions for clarification. S 5

They should teach us without giving punishments; we do not like to have any kind of punishments. S 4

They should teach us in an easy way to understand; they should repeat the difficult things. S 1

We would like to have more appreciation; teachers should care about us more ... They should treat us well. We are unable to go to popular schools. We have no money to go there. S 18

If they care about us, we will be very happy ... They should teach us well and they should allow us to ask questions for clarification. S 6

They should teach all the students in the class, not only for the brighter students. S 17

When a teacher can connect with students and demonstrate constructive behaviour, such as raising questions, consideration for their feelings, and showing interest and admiration, there will be an improvement in the students' motivation and achievement (Ulug et al., 2011). Moreover, teachers who realise that their understanding and skills directly impacts students, and who take accountability for their own understanding and skills, form positive relations with students and can converse with these students in a well-organised way (Ari, 2008).

Roorda et al. (2011) conducted a meta-analysis of the impact of teacher-student interactions on student engagement and achievement. They reported that student adaptation was improved if the teacher-student connection was of an excellent standard, and this was particularly effective with at-risk, low socio-economic adolescents. The study sample of the current study was also at-risk, low socio-economic adolescents.

### **5.5.1.2 Quality learning activities**

Almost all students interviewed in both mediums were interested in having quality learning activities within their teaching and learning process. This is linked to teachers' innovative and creative use of teaching methods, techniques, and teaching aids.

We would like to have more activities. S 3

We need more activities and team work. S 11

We like to do different kind of activities. But most of the time we have just one type of activity. S 14

We like to learn by doing something, we do not like to just listen to teachers, and we need more practical things to do. S 4

Valerio (2012) claims that intrinsic motivation refers to permitting students to form goals and discover their well-being. Through the implementation of well-planned activities, students can become involved in learning. Hurst (2011) emphasised that well-planned learning activities permit students to perceive the importance of the subject to real-life.

Niemiec and Ryan (2009) stated students' competence could be improved by teachers bringing in learning tasks that are most demanding, thus allowing students to examine and to develop their academic competencies. They also advised that students' autonomy could be assisted by teachers reducing the emphasis on evaluation and any perception of coercion in the classroom. Furthermore, by increasing students' sense of participation and selection in educational tasks, autonomy could be supported. When students sense they can satisfy the challenges of their schoolwork, they are competent. Students, who feel competent but do not feel autonomous will not maintain intrinsic motivation for learning (Niemiec & Ryan, 2009). Accordingly, if schools provide more quality learning activities to students, their competence, autonomy, and relatedness and ultimately their intrinsic motivation for learning would be increased.

#### **5.5.1.3 Increasing the quality of teaching-learning resources**

The need to increase the quality of school resources, both human and physical, was noted by interviewed students from both Tamil and Sinhala-medium schools.

We should have teachers for all the subjects. S 4

We should have facilities for all the subjects. S 6

Our classrooms must be equipped. We should have a library to read more. S 1

We would like to explore new things. No opportunities' given for that by the school. S 10

We should have a science lab and sufficient resources in our classroom. S 2

We should have more facilities in our class room as well as school. S 8

We need music and sports instruments for our school. S 9

We would like to learn computer skills. So, we should have computers in our school. S 5

Akomolafe and Adesua (2016) investigated the impact of physical amenities on students' level of motivation and educational achievement in senior secondary schools located in the south west of Nigeria and found that insufficiency of physical amenities was a possible

reason for low educational achievement among students. Thus, physical amenities that are accessible and considerably used to fulfil students' needs can facilitate students' satisfaction in learning and guide them to high achievement (Akomolafe & Adesua, 2016). It is evident that, Sri Lankan government schools should be provided with sufficient quality human and physical facilities for each and every school to increase students' intellectually challenging learning and thus increase motivation and engagement in their learning.

However, the Institute of Policy Studies of Sri Lanka (IPS) (2014) reported that school visits by zonal and divisional education officers tend to be poor uses of time and money, particularly for schools located far from education administration offices

#### **5.5.1.4 Student self-improvement needs**

All of the students in the interviewed sample, without any gender or ethnicity difference, reported that they should study more.

It is more about how I am studying rather than how much I am studying. S 4

I need to improve my self-confidence, so I can manage my stress and perform better. S 14

I think I should work hard towards good marks. S 17

I know I'm lazy to learn, I do not have a person at home to support me for my learning, so I should work hard. S 5

I should prepare a homework plan as well as study plan. S 21

It should be noted that, most of the students in the sample did not make any suggestions about how to develop their motivation and engagement towards learning. People engage in recreation, discover and challenge when they are intrinsically motivated (Niemi & Ryan, 2009).

#### **5.5.2 Suggestions made by teachers' and principals'**

In schools, intrinsic motivation becomes less with each advancing grade (Ryan & Deci, 2000a). Therefore, consideration of teachers' and principals' suggestions is very important

when planning initiatives to increase students' motivation and engagement in learning. From the suggestion by teachers and principals on how to increase such motivation and engagement can be increased, five themes emerged: (1) continued professional development of teachers, (2) increasing resources, (3) developing teachers' and principals' attitudes, (4) developing students' attitudes, and (5) future initiatives.

### **5.5.2.1 Continued professional development of teachers**

Darling-Hammond, Wei, Andree, Richardson and Orphanos (2009) believed that professional development should be concentrated, continuing and linked to application. Further professional development should centre on student learning and deal with the teaching of exact syllabus content. Furthermore, it should align with school development concerns. Both medium teachers' and principals' responses affirmed that continued professional development is essential for both teachers and principals.

Teachers said::

We need trained teachers for mathematics, science, and English. T 5

We need well qualified information technology and aesthetic teachers for our school. T 2

This claim was particularly applicable to Tamil schools where many of the teachers had no training and there was a shortage of trained teachers.

As expressed by the principals:

I think professional development on early adolescence would be beneficial because often teachers forget that they are kids. P 2

Teachers need more extensive training in the unique, social, emotional and psychological needs of adolescents. P 5

Teachers need to keep using new techniques that would make students motivated to learning. I think we should have well experienced teachers for difficult subjects. But the problem is those teachers do not like to work in these schools. P 6

Teachers indicated that school leaders should do a better job of communicating, especially about the specific needs of at-risk students and they should try to help them succeed rather than punish their failures. Further, some teachers stated that their principals should initiate programmes to increase students' performance.

Relatedness is extremely important for students to feel that the teacher honestly likes, admires and values them. Students who demonstrate such belonging tend to show identified and integrated regulation for the difficult activities engaged in learning (Niemic & Ryan, 2009). If teachers and principals' respect and value their students, their intrinsic motivation will be increased. For that they should have more training and development in their profession.

Ulug et al. (2011) claims that the skills and attributes that are necessary to be a high-quality teacher are similar to those aspects that describe a high-quality education. Barber and Mourshed (2007) emphasised that improving deliberation is considered as professional development of teachers since they have the greatest impact on student results. In order to maintain excellence in teaching, teachers need to seek opportunities to expand their knowledge, comprehension, abilities and application (GTC for England, 2009).

IPS (2014) argued that teacher demand and supply problems in Sri Lanka have decreased the quality of teacher training. To meet demand, an inducement system has been introduced for potential and current teachers undertake training to achieve qualifications for admission or progression rather than to become successful teachers. Teachers' current experience significant stress when trying to fulfil their teaching obligations as well as their training commitments. Although training can be delivered through distance education or part-time to reduce the pressure on teachers, they still face significant pressure to get through their teaching and studying obligations.

Little et al. (2011), Pillay, Muttaqi, Yagya, and Herath (2015), and World Bank (2011) argue that on the supply side, the skills and performance of trainers are generally weak, and the pressure to develop the quantity of training needed to meet the requirements of a huge number of teachers has devalued the quality of the training. Overall, the standard of

training presented by part-time and distance education approaches are particularly low due to the trainers' lack of expertise in these modes of delivery and the negative impacts of over-enrolment.

#### **5.5.2.2 Increasing resources**

Almost all principals and teachers in both Sinhala and Tamil-medium schools noted that their schools “should have separate classrooms, sufficient furniture, school library, proper science lab, musical instruments, and sports instruments”. This was supported by the students' responses in this regard. This suggestion was more frequent in relation to Tamil schools.

Ogunniyi (1982) said that laboratories are very important in science teaching and learning. Similarly, Okunola (1985) stated that well-designed school buildings with attractive surroundings, laboratories and playgrounds certainly lead to enhanced achievement in the school setting. Further Chandan (1999) argued that for successful teaching to occur in any learning context there must be sufficient and excellent physical amenities.

Furthermore, Ademilua (2002) emphasised that lacking sufficient physical resources/amenities leads to a steady fall in students' educational achievement. Moreover, Nwankwo (1982) noted that the condition and preservation of physical amenities like buildings, laboratories, libraries, furniture, utensils and so on, is very significant for successful and competent school management and enhanced educational achievement. Both principals and teachers believe that if school physical resources improved, students' learning would improve and more extracurricular activities also could be provided. Therefore, it is evident that if schools had sufficient physical resources for their teaching, the intrinsic motivation of their students could be increased.

#### **5.5.2.3 Improving teachers' and principals' attitudes**

The majority of principals and teachers from both Sinhala and Tamil-medium schools felt that they should improve their attitudes towards students' motivation for learning. Teachers said:

I know that I could do something. Either the principal or the other staff did not support me to initiate that. T 6

I think I could try and find more time to listen to the students and what's going on in their lives. T 5

I need to check with my students more often. They all need more attention from me no matter what their needs are. T 11

I need to focus less on academic achievement and more on the process of learning. T 7

Principals said:

I have started a programme to increase students' performance in learning. But teachers had negative attitudes. So, I was unable to continue that. P 8

I feel that some of the teachers do not have a target in their career. They do not want to improve their professional development. P 12

I think we all should develop our attitudes towards students' learning. P 1

In other words, principals were of the opinion that teachers should develop their attitudes and teachers thought that principals should develop their attitudes towards students' motivation and engagement in learning, while both believed that their individual attitudes should also be developed.

Teachers are examples for students. A teacher who shows his/her individual interest for studying will convey these traits to the classroom, increasing the intrinsic motivation of the students (Valerio, 2012). As reported by Goodenow (1993), students were engaged in class when they perceived strong support from their teachers. In the same way, Roeser and Eccles (1998) reported that, in their study, the positive attitude of teachers of 7<sup>th</sup> and 8<sup>th</sup> grade classes was transferred to their students increasing their self-esteem and reducing their frustrations. According to IPS (2014), whether recently employed or not, teachers allocated to rural schools take up substantial time in visiting education administration offices to submit and enquire about their transfer requests. Those whose transfer requests were refused became depressed, with a possible decline in their motivation and effort (Balasooriya, 2012).

#### **5.5.2.4 Developing students' attitudes**

The majority of principals' and teachers' from both Sinhala and Tamil-medium schools, students' believed self-motivation for learning should be developed. As stated by the teachers:

They must complete their homework on time; they should understand the value of education. T 6

They and their parents both do not value the education; they do not pay enough attention on their education. T 8

They like to watch tele-dramas; they do not do any learning related activity at home. T 1

They imitate who left from the school early; so, they must consider about their education mostly. T 4

They should come to the school regularly; they are absent due to chena cultivation, gem mining, and going markets with their parents' to sell their crop. They like to earn money rather than learning. T 12

According to the principals;

They do not have role models to follow. So they have to work hard. P 1

For them, other than the education, nothing is there to overcome from their poor situation; therefore, they should work hard. P 2

Education is the only one ladder for that; so they should think about it and concentrate more on their studies. P 8

It appears that to appreciate the value of education and improve their attitudes towards learning, first, students' basic needs to be fulfilled. Therefore, in classroom settings that assist the achievement of autonomy, competence and relatedness, students are likely to be more intrinsically motivated and more enthusiastic to undertake challenging tasks, and to value educational experiences (Niemic & Ryan, 2009).

### 5.5.2.5 Future initiatives

Very few principals' and even fewer teachers from either Sinhala or Tamil-medium schools made suggestions for increasing their students' future motivation and engagement towards learning. Teachers' responses included:

I will do past papers and revisions. T 8

I will go to students (homes), who do not come to school. T 13

I will conduct evening and after-school classes for those who do not perform well. T 3

I will talk with teachers to start a programme at the beginning of next year; I will make them aware of value of learning with the support of a counsellor. T 10

Principals stated:

I will have a plan to give training to teachers with the support of a non-government organisation --*World Vision*. P 9

I will have some frequent progress review meetings with teachers. P 2

## 5.6 Discussion and Summary

In this study, the thematic analysis followed is an inductive (data-driven), semantic, approach. In relation to the interviewed students' perspective about how school-related conditions impact upon students' motivation and engagement in learning, two main themes emerged: (1) quality of classroom relationships and (2) quality of curriculum and resources. In theme one, quality of classroom relationships, negative teacher-student relationship, and lack of intrinsic motivation, and influence of peers emerged as sub-themes. Under the sub-theme, negative teacher-student relationship, four categories were identified: harsh punishments, inadequate encouragement, un-engaging teaching, and unfriendly teaching-learning environment. In theme two, inadequate quality learning activities, difficult subject matter, difficult and excessive homework, regular tests, inadequate classroom resources, and inadequate quality teaching-learning resources emerged as sub-themes.

From the teachers' and principals' perspectives of school-related conditions, two main themes emerged: (1) quality of participants in the system and (2) quality of curriculum and resources. Students' lack of intrinsic motivation, influence of peers, and teacher absence emerged as sub-themes from both teachers' and principals' perspectives in theme one. Apathetic leadership emerged as a sub-theme from teachers' perspectives and lack of quality teaching emerged as a sub-theme from principals' perspectives. In theme two, difficult subject matter, inadequate classroom resources, and inadequate quality teaching-learning resources emerged as sub-themes. Principals and teachers blame each other for not being responsible for students learning. Also, they both blame parents for not valuing education and supporting their children in learning.

From the interviewed students' perceptions of motivational strategies taken by the school, three themes emerged: (1) raising parental awareness, (2) conducting extra classes, and (3) educational trips. From both teachers' and principals' perspectives of motivational strategies taken by the schools, two common themes emerged: (1) parental awareness, and (2) individual support. From the principals' perspectives, short-term initiatives emerged as a sub-theme.

According to interviewed students' suggestions, there is a need for high-quality teacher-student relationships, quality learning activities, increasing teaching-learning resources, and students' self-improvement needs. According to teachers' and principals' common suggestions, there is a need for continued professional development of teachers, increasing resources, developing teachers', and principals' attitudes, and developing students' attitudes.

Overall, interview responses showed there were particular school-related conditions; unfriendly teaching-learning environment, inadequate classroom resources, inadequate quality teaching-learning resources, teacher absence, lack of quality teaching, and apathetic leadership; these factors particularly negatively impacted Tamil-medium students. Apparently, the majority of male students were unmotivated and unengaged in learning. They stated several reasons for that: harsh punishments, unfriendly teaching-learning environment, influence of peers, and inadequate quality learning activities. The themes discussed above particularly related to Tamil-medium and male students. But,

inadequate encouragement, un-engaging teaching, lack of intrinsic motivation, difficult subject matter, difficult and excessive homework, and regular tests themes emerged regardless of ethnicity or gender.

Despite the fact that some interviewed students, teachers and principals had suggestions on how to increase students' motivation and engagement in learning, these were not proper mechanisms to increase their intrinsic motivation and self-determination in learning.

In the next chapter, this study will propose a model for motivating and engaging the least motivated and engaged students.

# **CHAPTER 6: CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS**

## **6.1 Introduction**

This chapter presents the conclusions, implications and limitations of the study. A model will also be presented that is based on the findings from the analysis of the qualitative data of this study. Recommendations will be presented based on the model designed to increase the motivation and engagement in learning of the least motivated and engaged students in school. The model utilises a self-determination perspective. The chapter concludes with a discussion of topics for future research.

## **6.2 Summary and discussion**

Using a SDT perspective, this study examined early adolescents' levels of motivation and engagement in learning and the impact of school-related conditions in the low socio-economic districts of Sri Lanka.

The first stage of the study was to collect data from a sample of students using the MES-JS questionnaire. A CFA was conducted to measure the construct validity of the MES-JS, which showed no robust solution with the current study sample. Therefore, an EFA was conducted and four new scales were derived. The newly EFA-created scales also showed no evidence of validity beyond the exploratory factor structure. The overall findings of the first stage indicated that motivation and engagement did not appear to be a major problem in the selected schools. However, it did reveal differences between various sub-groups: Sinhala-medium schools students' levels of PM and PE were lower than students in Tamil-medium schools in low socio-economic districts in Sri Lanka. And, Tamil-medium schools students' levels of FAA and UC were higher than those of students in Sinhala-medium schools in low socio-economic districts in Sri Lanka. Further male students' PM was significantly lower than female students' PM.

At the school level, in Tamil-medium schools 2 and 5, the PM was higher than at school 13, and in Sinhala-medium school 6, the PM was higher than in schools 8, 9, 10, 11, 12,

and 14. Furthermore, in Sinhala-medium school 8, the PE was higher than in schools 12 and 14, and in school 11, UC was higher than in school 14. Further, in Tamil-medium schools 1, 2, and 3, FAA was higher than in school 13, and in school 3, FAA was higher than in school 5. And, in schools 2 and 3, UC was higher than in school 4.

The overall findings of the second, qualitative stage of the study, in which least motivated and engaged students (as identified by MES-JS questionnaire results), teachers and principals were interviewed, indicated that there were particular school-related conditions that impacted negatively on most of the sample of interviewed students and appeared to contribute to their low motivation and engagement, particularly Tamil-medium and male students. There were also common school-related conditions that impacted regardless of gender and ethnic differences. The interview responses of students, teachers and principals indicated that the school-related conditions that had a negative impact included an unfriendly teaching-learning environment, inadequate classroom resources, inadequate quality teaching-learning resources, teacher absence, lack of quality teaching and apathetic leadership. These conditions had a particularly negative impact on Tamil-medium students. Among the interviewed sample, the majority of male students were unmotivated and unengaged in learning. They stated several reasons for this, including harsh punishments, an unfriendly teaching-learning environment, influence of peers and inadequate quality learning activities. Inadequate encouragement, un-engaging teaching, lack of intrinsic motivation, difficult subject matter, difficult and excessive homework, and regular tests were themes that emerged from the qualitative data analysis without any ethnicity or gender differences.

It appeared from the responses of students, teachers and principals interviewed that few schools had adopted strategies (educational trips, raising parental awareness, individual support and short term initiatives, such as offering extra classes after school and during weekends, conducting counselling sessions using experts, improving basic writing and reading skills programmes, giving rewards to students, having progress review meetings, and doing past papers and revision) to increase early adolescents' motivation for learning, though they were not related to intrinsic motivation. When the strategies were applied, it was mostly in the Sinhala-medium schools and not in the Tamil-medium schools.

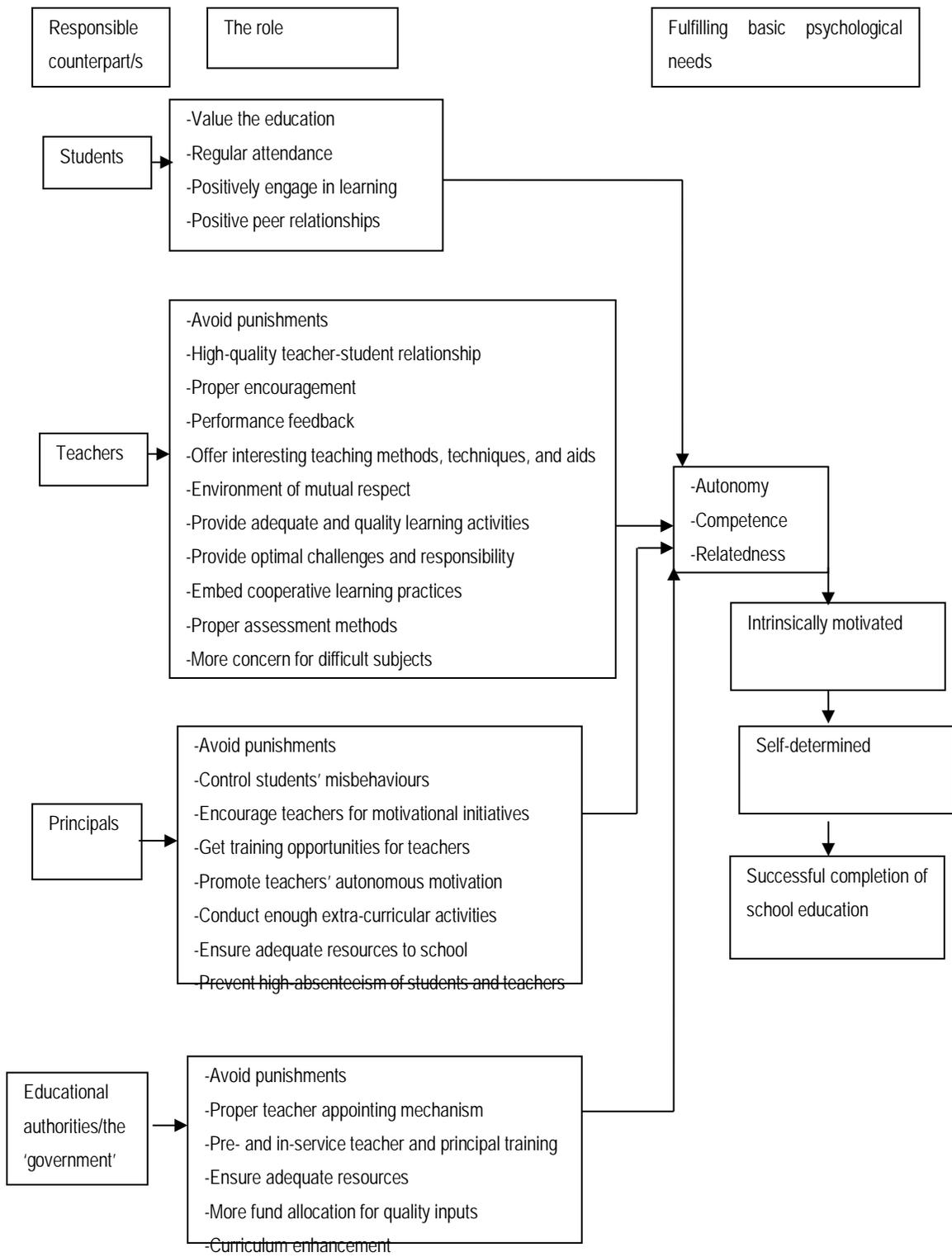
In general, interviewed students reported a need for higher-quality teacher-student relationships, quality-learning activities, increased teaching-learning resources, and students' self-improvement needs. Teachers and principals reported a need for continued professional development of teachers and increased resources.

As a whole, the quantitative data findings indicated that the positive motivation (PM) factor is consistent with findings reported in the existing literature. The other three factors, which are PE and negative aspects of motivation and engagement (FAA and UC) are unique findings generated from this study. The findings from the qualitative phase of this study revealed a number of school-related conditions not discussed in the existing literature. This study, therefore, has generated new knowledge in relation to low socio-economic early adolescents motivation and engagement in learning in Sri Lanka.

### **6.3 A model for increasing the motivation and engagement of early adolescents**

The findings from the qualitative phase of this study show that a number of negative school-related conditions may have contributed to the low levels of motivation and engagement amongst early adolescents, particularly among Tamil-medium and male students. Sophisticated interventions may be required to promote self-determination and help students to acquire the knowledge, skills and beliefs that meet their needs for competence, autonomy and relatedness. Such interventions should positively affect the least motivated and engaged students' study behaviours and could lead to greater academic success.

Figure 6.1 illustrates a model designed as a first step to identify students' needs for self-determination through school-based intervention programmes that will motivate and engage early adolescents from the low socio-economic areas in Sri Lanka. The model was derived employing SDT and based on the interview data collected and analysed for this study. Even though, this model was not the intent of the study, it neatly combines input from all stakeholders interviewed and suggestions for the educational authorities and government. If all stakeholders play their part, motivation and engagement in students will improve. It should be noted that, this model excludes the parents and the community.



**Figure 6.1: A model to increase least motivated and engaged early adolescents' motivation and engagement in learning from an SDT perspective**

## 6.4 Implications

A number of implications arise from the model shown in Figure 6.1. Important findings from this study are that harsh punishments, influence of peers, and inadequate quality learning activities influence the low levels of positive motivation for learning among male students. The impact of these factors on motivation is supported by the existing research literature. The *Millennium Development Goals Country Report* (United Nations, 2014) affirmed that the percentage of children attending school after age 14 is lower for males than females, mainly in the rural and estate sectors. For example, 68.6% of boys aged 15 to 16 are attending school in the estate sector, compared to 77.5% of girls. Perera (2011) notes that poor teacher-student relationships and lack of teachers' attention to students are factors explaining poor retention rates in school. Negative teacher-student relationships, peer groups, unfriendly classrooms, and school environment are also important factors which influence a decrease in the desire of students to stay at school (Perera, 2006).

Unfriendly teaching-learning environment, inadequate classroom resources, teacher absence, lack of quality teaching, and inadequate teaching-learning resources might also particularly negatively influence the least motivated and engaged Tamil-medium students. Interview data reveals they did not have enough opportunities to fulfil their basic psychological needs, and to be motivated and engaged in learning. According to *Treasures of the Education System in Sri Lanka* report (World Bank, 2005), Sri Lanka has not yet attained universal compulsory education. The report stated that about 18% of students are unable to complete grade 9. Many of those children come from deprived homes, economically deprived geographical areas, including the estate sector (Tamil-medium students in this study represents the estate sector). The World Bank report proposes that to achieve universal compulsory education targets, strong policy actions should be implemented for those groups. Moreover, as found by Athurupane (2009), basic and secondary education quality needs to be improved, particularly in disadvantaged areas. However, time is required to implement the reforms in schools and reinforce teaching-learning processes, particularly in rural and plantation regions. It seems that there is a strong social justice contribution in relation to the findings of this study.

Interview data from the Sinhala-medium students from low-socio-economic areas also indicated that they encounter considerable deficiencies in the school-related conditions in relation to their learning. Therefore, immediate policy actions should be taken to overcome this situation.

School-related conditions, both human (harsh punishments, inadequate encouragement, un-engaging teaching, unfriendly teaching-learning environment, lack of intrinsic motivation, influence of peers, inadequate quality learning activities, students lack of intrinsic motivation, teacher absence, apathetic leadership, and lack of quality teaching) and physical (difficult subject matter, difficult and excessive homework, regular tests, inadequate classroom resources, and inadequate quality teaching-learning resources), should be improved and developed to provide better education for the least motivated and engaged students. Such observations are supported by the existing research. According to Liyanage (2013), even though Sri Lanka is considered a South Asian country which has a high rate of literacy, the assessment hides many serious weaknesses in its education system. For example, there is low participation and low attendance at school; low achievement in mathematics and science; imbalanced allocation of resources among schools, particularly between urban and rural schools; and an excessively large curriculum. Raju (2016) emphasised that evidence from standardised tests for Sri Lanka shows shortfalls in student learning. Sri Lanka's rural schools are likely to have the lowest achieving students.

Although this research is based on data gathered in low socio-economic districts of Sri Lanka, it should be noted that those schools are also located in rural areas. Therefore, this research indicates that investment in rural education is important.

As a whole, this study implies that low socio-economic least motivated and engaged students' intrinsic motivation should be enhanced to increase their self-determination and participation in learning will be increased.

## **6.5 Limitations of the study**

The limitations of this study will be discussed under two sections: methodological restrictions and practical realities.

### **6.5.1 Methodological restrictions**

The participants in this study consisted of Grade 8 students who were in their early adolescence period, and who were studying in government schools. The research was also limited to investigating school-related conditions (not other conditions) impacting motivation and engagement. Further, this research looks at the perceptions at one moment in time. It does not compare changes in perceptions, motivational levels or academic performance over time.

Existing literature about Sri Lanka notes that there is low participation in learning at school among adolescents in low socio-economic districts of Sri Lanka, with a possible explanation being that their low motivation and engagement to learn at school. The study sought to examine school-related conditions that might cause such behaviour. Therefore, only the least motivated and engaged students were interviewed; highly motivated and engaged students were not interviewed. This is a limitation of the study and should be addressed in a later study.

The sample chosen for the current study was 220 (198 after data screening) and probably accounted for a poor model fit as revealed by the CFA. Comrey and Lee (1992) had argued that a sample size of 200 is fair, 300 is good, 500 is very good, and 1000 or more is excellent. They urged researchers to obtain samples of 500 or more observations whenever possible, but clearly the sample size impacted the results of the quantitative phase of this study. Small sample size also determined a decision not to conduct a CFA and EFA for the two cultural groups separately, thus limiting the possible insights that quantitative data might reveal.

A further limiting factor was the employment of the MES-JS, which was developed in the Australian socio-cultural and may not have been suitable for the Sri Lankan socio-cultural context in which factors affecting motivation and engagement in learning might be

different. As a result, any CFA might not have provided a robust solution for the study sample even if there had been a sufficient sample size.

When conducting interviews with the participants, the questions were aligned to negative school-related conditions, which may have been leading responses and not drawn out positive school-related conditions. This is a limitation of the current study and should be addressed in a future study.

Although this research was begun with an assumption that there would be low motivation and engagement in the low socio-economic districts in Sri Lanka, data from the MES-JS did not support this assumption, although there were significant differences between sub-samples.

### **6.5.2 Practical realities**

This study was conducted starting with Tamil-medium students and there were few problems regarding cooperation with the sample of students. However, in relation to Sinhala-medium students, it was not possible to obtain an equal number of participants from the two schools selected because of students' high absenteeism and the limited number of students in that particular grade. Most of the Sinhala-medium schools in the sample only had one class in that particular grade (other than school 12). Therefore, the researcher had to obtain permission again to conduct the research with two further Sinhala-medium schools (one each from Wellawaya and Bibile zone).

Because of time and logistical limitations, it was impossible to do a large-scale pilot, but the instrument had been thoroughly validated.

## **6.6 Recommendations**

On the basis of this research and the wider research literature (from an SDT perspective), it is possible to make a series of recommendations for increasing students' motivation and engagement in learning in low socio-economic districts in Sri Lanka. The recommendations are presented in two groups based on the findings and conclusions of this research. These are: (1) recommendations to gain maximum results from the proposed motivation and engagement model; and (2) recommendations for future research.

## **6.6.1 Recommendations related to the proposed model**

SDT has strong implications for both classroom practice and educational reform policies (Niemic & Ryan, 2009). In addition, SDT provides an integrated framework for understanding how motivation may be enhanced when young adolescents' basic and developmental needs are met within a responsive school context (Ryan & Deci, 2000a). Therefore, recommendations related to the proposed combined model will be categorised under three sections: teachers, principals and educational authorities/the government. The recommendations form the basis for developing a series of procedures for increasing least motivated and engaged students' intrinsic motivation and engagement in learning.

### **6.6.1.1 Recommendations for teachers**

The majority of interviewed students, particularly male students, claimed their teachers punished them for not completing school tasks. Giving punishments diminishes students' intrinsic motivation towards learning. Therefore, teachers should stop imposing harsh punishments. They should also use non-controlling language. Ultimately, this will impact positively for increasing least motivated and engaged students' self-determination in learning, particularly autonomy.

The majority of interviewed students claim they did not get adequate encouragement from their teachers. This will reduce their intrinsic motivation and thus self-determination in learning. Therefore, students' attempts should be encouraged by the teachers. Instead of focusing on performance goals (tests and grades), teachers should provide a supportive classroom environment by paying more attention to their interpersonal communication with students, offering choices, and supporting and encouraging students to pursue their interests whenever possible. Also, timely, constructive, and regular performance feedback should be provided by the teachers.

Un-engaging teaching was a major issue raised by the interviewed students. Therefore, interesting teaching methods, teaching techniques, and teaching aids (including audio/video) should be employed by teachers (particularly for difficult subjects and weaker students). They should be made aware of the diverse range of student cohorts and should tailor their teaching methods to the different learning needs of their students.

From the interviewed students' perspectives, they had an unfriendly teaching-learning environment. They also suggested that high-quality teacher-student relationships would increase their motivation and engagement in learning. Therefore, the teachers should value and respect all their students and should create a friendly classroom environment and maintain a high-quality teacher-student relationship to foster their self-determination in learning.

#### **6.6.1.2 Recommendations for principals'**

A considerable number of students interviewed stated that they received punishments from their teachers. Punishment diminishes their intrinsic motivation for learning. Therefore, principals should take action to abolish corporal punishment and any other kind of punishment within their schools to ensure a better learning environment within their school context. For that they can introduce awareness programmes among teachers, indicating the importance of avoiding punishments. Also, they could arrange information sessions with experts in the fields of child rights, educational law, and school counselling etc.

Moreover, according to the majority of students and teachers interviewed, their schools did not have adequate or quality classroom resources and teaching-learning resources. These deficiencies may impact on their motivation and engagement levels in learning. Therefore, principals should ensure effective delivery and good performance by getting adequate and quality classroom resources and teaching-learning resources for their schools. For getting them, they should report to the relevant authorities immediately and always make them aware about their school conditions. Also, principals should inform teachers to make them aware about their classroom needs immediately.

As mentioned by many teachers and principals interviewed, there was a high absenteeism of early adolescents in those schools. Therefore, principals should take immediate action to curb high absenteeism by raising awareness of this problem amongst students, teachers and parents. For achieve this, they should introduce a proper incentives that might include; a reward system to the students who attend schools regularly, awareness programmes to increase students' attendance; and a monitoring committee to regularly monitor student attendance.

### **6.6.1.3 Recommendations for educational authorities/the 'government'**

The majority of interviewed teachers and principals, professional development (both pre- and in-service) should be provided for teachers and principals in the area of early adolescents' psychological needs. Therefore, the authorities should take immediate action to enhance their professional development related to those students' psychological needs.

As revealed in this study, there were many issues related to teacher appointment in low socio-economic areas. Therefore, a fair and proper mechanism for appointing teachers to low socio-economic schools should be implemented by the government. Teachers should be appointed according to their qualifications. Also, experienced teachers should be appointed in low socio-economic schools. And, school exchange for teachers should be effectively implemented. It appears that political influences affect school exchanges for teachers and those should be blocked.

This study found that, according to students, teachers and principals, there were no adequate resources available in type 2 schools located in low socio-economic areas. Therefore, the MoE and indeed all stakeholders in the education sector should work towards the provision of adequate contextual and instructional materials, most especially in the low socio-economic district schools to ensure that students in those schools enjoy the privileges and experiences enjoyed by their counterparts in the high socio-economic schools.

According to interviewed students, teachers and principals, difficult subject matters reduce students' intrinsic motivation for learning. Therefore, the government should consider curriculum enhancement, particularly in the difficult subjects. Curriculum guides should give priority to providing adequate space and time for creative and practical work appropriate for all types of learners and different learning styles.

### **6.6.2 Recommendations for future research**

It has been identified that Sri Lankan low socio-economic students have a low participation rate in education (e.g. Athurupane, 2009; Jayaweera & Gunawardena, 2013; Little et al., 2011; Liyanage, 2013; Perera, 2006; Perera, 2011; Raju, 2016). However, according to the existing research literature, it appears that there has not been any research

conducted specifically based on students' motivation and engagement in learning in the Sri Lankan educational context, particularly in low socio-economic districts. After conducting an EFA on data from this research study sample, four factors emerged: PM, PE, FAA, and UC. A CFA should be conducted with a separate sample to confirm the factor solution derived from this study.

It is important and relevant to investigate different studies based on students' motivation and engagement in learning. This study was based on only two low socio-economic districts in Sri Lanka. Therefore, future studies should be located in different low socio-economic districts. There was a 30-year civil war in Sri Lanka until 2009, and so very limited educational research has been conducted in those areas. Therefore, it is important to conduct such studies in those conflict-affected districts (in the North and Eastern provinces, using more Tamil-medium students) in Sri Lanka.

This research was based on early adolescents' general motivation and engagement in learning and did not focus on a particular subject. However, from the interview responses, it was found that these students face particular motivational problems in relation to mathematics, English and science. Therefore, it is imperative that future research compares the early adolescents' motivation and engagement in learning across schools at a subject-specific level.

According to participants' responses, there were programmes conducted to increase students' performance, although these were not successful. This study suggests introducing instructional intervention programmes (action research model) to promote SDT and teaching practices that help least motivated and engaged students to acquire the knowledge, skills and beliefs that meet their needs for competence, autonomy, and relatedness in those low socio-economic districts.

Some researchers (e.g., Jayaweera & Gunawardena, 2013; Little et al., 2011; World Bank, 2005) have researched low socio-economic conditions impacting students learning in those areas. However, those findings were not sufficient and further in-depth research should be conducted to reveal more information on socio-economic conditions, as well as

on supportive home environments, parents' motivation and commitment to education, and so on, and the impact these have on students' motivation and engagement in learning.

## **6.7 Discussion and summary**

This chapter discussed the conclusions of the findings of this study. Then, a motivation and engagement model developed based on the findings of the qualitative phase was presented. Based on the model, implications of this study were examined. After that, the methodological restrictions and practical realities in relation to this study and the recommendations for different players involved in the school system (teachers, principals, and educational authorities/the government) were examined. This was followed by the recommendations for future research.

According to Eccles (1999) and Eccles et al. (1993), successful experiences in school can help to give a child a positive view of his or her competence and a positive attitude toward learning and engagement in various activities and challenges. With suitable coping skills and supports, stressors faced by junior secondary students can be managed successfully. Understanding this significance may help educators improve the learning experiences of all students, particularly at-risk early adolescents in schools which are located in low socio-economic districts in Sri Lanka.

A considerable amount of research has shown a decline in motivation and performance for many students when they move from primary school into secondary school (Galton, Gray, & Rudduck, 2003; Graham & Hill, 2003; McGee, Ward, Gibbons, & Harlow, 2004). Research demonstrates that the nature of motivational change on entry to junior secondary school depends on the characteristics of the learning environment in which students find themselves (Callahan et al., 2002). However, without a systematic understanding of the conditions necessary to lessen these factors, early adolescent students may continue to experience negative consequences which can last a lifetime (Olson, 2014). Therefore, the model developed through the findings of this study may be employed to increase early adolescents' motivation and engagement in learning. According to Deci and Ryan (2000), relatedness is promoted by warmth or undermined by rejection, competence is promoted by structure or undermined by chaos, and autonomy is promoted by autonomy support or

undermined by coercion. When a student's needs are met, he or she is more likely to be engaged in classroom activities.

Finally, it is hoped that the findings of this study will go some way towards improving the retention rates of students in low socio-economic context schools and that this can contribute to the making of a stronger Sri Lanka.

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### **Appendix A**

Perera, R., & Hathaway, T. (2017). Principals' and teachers' perceptions about the impact of school-related conditions on early adolescents' motivation and engagement in learning and their motivating practices (in low socio-economic districts in Sri Lanka). *International Journal of Social Sciences*, 3(1), 288–306. doi:10.20319/pijss.2017.31.288306. Retrieved from <https://grdspublishing.org/index.php/people/article/view/416>

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### **Appendix B**

Perera, R. (2018). Early adolescents' motivation and engagement in learning in low socio-economic districts in Sri Lanka (Based on Kruskal-Wallis *H* test results). *International Journal of Innovative Research and Knowledge*, 3(6), 270–78. Retrieved from [www.ijirk.com](http://www.ijirk.com). Relates to Dataset recorded in RUNE: <https://hdl.handle.net/1959.11/22906>

### **Appendix C**

Perera, R., & Hathaway, T. (2016, November). *Early adolescents' perceptions of school conditions impacting motivation and engagement in learning in low socio-economic districts in Sri Lanka*. Paper presented at the International Conference on Education and Psychology, Kyoto, Japan. Recorded in Rune: <https://hdl.handle.net/1959.11/19896>

### **Appendix D**

Perera, R. (2018, August). *Early adolescents' motivation and engagement in learning in low socio-economic districts in Sri Lanka (Based on two-way MANOVA and one-way ANOVA results)*. Paper presented at the International Conference on Psychology, Language, and Teaching, Sydney, Australia. This paper won the excellent paper award

### **Appendix E**

Perera, R. (2018, October). *Early adolescents' motivation and engagement in learning in low socio-economic districts in Sri Lanka (Based on t-tests results)*. Paper to be presented at the International Conference on School Psychology and Educational Psychology, Sydney, Australia.

### **Appendix G**

Motivation and Engagement Scale – Junior School

Downloaded from [rune@une.edu.au](http://rune@une.edu.au), the institutional research repository of the University of New England at Armidale, NSW Australia.

## APPENDICES

### APPENDIX A: Journal article: Principals and teachers perceptions about the impact of school-related conditions on early adolescents' motivation and engagement in learning and motivating practices in low socio-economic districts in Sri Lanka

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#### PRINCIPALS AND TEACHERS PERCEPTIONS ABOUT THE IMPACT OF SCHOOL CONDITIONS ON EARLY ADOLESCENTS' MOTIVATION AND ENGAGEMENT IN LEARNING AND THEIR MOTIVATING PRACTICES (IN LOW SOCIO-ECONOMIC DISTRICTS IN SRI LANKA)

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#### Abstract

In Sri Lanka, a significant proportion of junior students fail to complete their education and withdraw early from secondary school. This is particularly true of students in low socio-economic districts. This inquiry sought to investigate principal and teacher perceptions of the school-related conditions and motivating practices that contribute to early adolescents' motivation and engagement in learning. The study used a qualitative research design. Participants were recruited using purposive sampling method, from ten government schools, representing type two schools, (Five from each Sinhala and Tamil medium), and located in Monaragala and Nuwara Eliya districts in Sri Lanka. Ten principals and ten teachers agreed to participate in semi-structured interviews. Thematic analysis was used to analyse the data and the theoretical construct of Self-determination theory (SDT) was applied to interpreting the data. The results inform two main themes in relation to the school conditions that impact students' motivation and engagement in learning: (1) impact of human conditions and (2) impact of physical conditions. Regarding the practices taken to increase motivation and engagement in

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learning, three themes were emergent: (1) parent awareness, (2) individual support and (3) short term initiatives. First, it can be concluded that numerous problems exist in relation to school conditions, and second that the practices of principals and teachers do not successfully address these problems, particularly in Tamil medium schools. It is suggested that, evidence-based intervention programmes be implemented in the most seriously affected schools to increase student motivation and engagement in learning, and slow attrition rates. It is imperative that future research extends to examine early adolescents' motivation and engagement across different subjects.

#### Keywords

Early Adolescents, Motivation and Engagement, School Related Conditions, Motivating Practices.

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### 1. Introduction

Although, Sri Lanka is recognised as a South Asian country with a high literacy rate, this statistic masks major shortcomings of the education system (Liyanage, 2013). Sri Lankan education has been experiencing a number of problems. These include high student attrition rates, low participation in education and poor attendance, particularly in the secondary and tertiary levels. Poor performance in mathematics and science, unequal distribution of resources among schools mainly rural and urban, and over-loaded curricula are also major issues (Liyanage, 2013).

The World Bank (2007) revealed that over 90% of children in the 11-14 age groups are enrolled in junior/lower secondary education (Grades 6-9) in Sri Lanka. Attrition rates were higher in these grades, compared to others, and higher for males than for females (Department of Census and Statistics, 2008). Poverty has an impact on this age group as the gap has increased between the participation of students in the lowest income quintile (61%) and the richest income quintile (76%).

Furthermore, in Sri Lanka overall student attrition rates from schools at the junior secondary level are 19.5% for the country as a whole. Females (18%) have a slightly lower attrition rate than males (21%). The attrition from junior secondary education was greatest in

Tamil plantation schools where 46% of students withdrew from school early, compared to 19% and 14% for rural and urban areas respectively. Across economic groups, attrition rates increased for economically disadvantaged people. At the lower secondary level, the withdrawal rate for economically disadvantaged students was 68% (World Bank, 2005). Thus, it appears that there are nationally high attrition rates in junior secondary level in Sri Lanka, and it is most acute in low socio-economic areas.

The above information has established that junior secondary students' school attrition is considerable in Sri Lanka. The reasons for this attrition are varied, but a number of the conditions, in particular teaching style and overall teacher behaviour towards students, appear to impact negatively on student motivation and engagement (National Education Research and Evaluation Centre, 2003; World Bank, 2005; Ministry of Education, UNICEF, & MG Consultants, 2009; Jayaweera & Gunawardena, 2009; Jayaweera & Gunawardena, 2013). Thus, lack of motivation and engagement may well be one of the main drivers of attrition.

The principal objectives of this in-depth study are as follows.

- To examine the school-related conditions impacting junior secondary students' motivation and engagement in learning
- To examine the motivating practices have been taken to increase junior secondary students' motivation and engagement in learning

#### 1.1 The context of the Sri Lankan education system and objectives of the study

Sri Lanka is an island nation located in the tropics just south of India. It has a population of 20 million, of whom 28.9 % are children aged less than 18 years and 17.8 % are children aged 5 to 14 years (the compulsory-education age group for Sri Lanka) (UNICEF, 2011; Department of Census and Statistics, 2011). The country was divided into nine provinces during the 19th century as per the 13<sup>th</sup> amendment to the constitution. Each province has two or three districts and altogether there are 25 districts across the country.

An important socio-economic category that needs to be defined for this study is the plantation sector (Nuwara Eliya district was chosen from this sector). It comprises the tea and rubber plantations established during the British colonial administration. The community is formed from the descendants of South Indian Tamil immigrants brought over from South India by the colonial administration as estate labourers and has been a marginalised population since

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the 19th Century. In particular, it has been disadvantaged educationally, confined initially to plantation children who still remain at a disadvantage to infrastructure at the secondary education level (UNICEF, 2013).

There are five levels of education in Sri Lanka (see Appendix 1): primary for 5–9-year-olds (grades 1–5); junior (or lower) secondary for 10–13-year-olds (grades 6–9); senior (or upper) secondary for 14–15-year-olds (grades 10–11); and collegiate for 16–17-year-olds (grades 12–13). In 2010, there were 9,675 government schools classified into four types (see Appendix 2): Type 1 AB, Type 1 C, Type 2 and Type 3 (a clear criterion is lacking for this classification. These initials do not stand for anything and are just used for classifying purpose). Type IAB schools offer instruction for grades 1–13 or grades 6–13 in all curriculum streams (Science, Commerce and Arts) in GCE Advanced Level; Type IC schools offer instruction for grades 1–13 or grades 6–13 only in Arts and Commerce streams in GCE Advanced Level; Type 2 schools offer instruction for grades 1–11; and Type 3 schools offer instruction for grades 1–5 or, in a few instances, for grades 1–9 (UNICEF, 2013).

## 2. Literature syntheses and theoretical framework

### School conditions and student motivation and engagement in learning

Considerable research has shown a decline in motivation and performance for many students when they move from primary school into secondary school (Graham & Hill, 2003; McGee, Ward, Gibbons, & Harlow, 2004). Research demonstrates that the nature of motivational change on entry to junior secondary school depends on characteristics of the learning environment in which students find themselves (Callahan, Clark, & Kellough, 2002).

Research focusing on motivational direction in junior secondary classrooms (Patrick, Ryan, & Kaplan, 2007; Wang & Holcombe, 2010) suggests that task-oriented classrooms (learning to finish the task) are linked to motivational and attainment declines, while mastery-oriented classrooms (seeking to improve competence) are connected with increases in motivation and academic achievement. Further, Jayaweera and Gunawardena (2013) indicate that curriculum reforms should focus strongly on transforming the learning culture in schools to a more activity-oriented approach that challenges junior secondary students and maximises their active participation in Sri Lankan society.

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outside classroom hours in collaboration with parents and community). Similarly, Panizzon and Pegg (2007) identified that in remote rural schools in Australia, enhancing strategic methods of teaching mathematics and science, and promotion of information and communication technology was important in reducing the attainment gap between rural and urban schools.

Teachers can foster a responsive learning environment that supports adolescents' evolving cognitive, social, personal, and emotional needs by providing increasingly sophisticated and challenging curriculum, active and relevant instruction, high-quality relationships characterised by care and trust, and opportunities for exploration (Eccles & Roeser, 2011; Jackson & Davis, 2000). Further, teachers might support students' needs and their motivation in school through their teaching practices (Adkins-Coleman, 2010; McHugh, Horner, Colditz, & Wallace, 2013; Meece, 2003). Junior secondary students are exceptionally unique and respond well to traditional practices including engaging in practices that encourage respectful and gentle relationships, encouraging and challenging students, and implementing genuine learning activities (Meece, Herman, & McCombs, 2003).

In addition, Billington and DiTommaso (2003); Skinner, Pappas, and Davis (2005) mention that, classroom instruction must always compete for student attention with other sources of reinforcement. There are two ways that the teacher can increase the student's motivation to attend to class: by decreasing the reinforcing power of competing (distracting) stimuli, and/or by increasing the reinforcing power of academic activities. Further, teacher-directed cooperative learning activities can be highly reinforcing for adolescent students, who typically find opportunities to interact with classmates to be a strong motivator (Beyda, Zentall, & Ferko, 2002; Linnenbrink & Pintrich, 2002).

#### **Theoretical considerations: Self-determination theory**

The theoretical construct of this study is based on self-determination theory (SDT) and is used to address how teachers can help motivate students. This theory distinguishes between two types of motivation: autonomous motivation and controlled motivation, and their related characteristics and consequences (Ryan & Deci, 2013). Further, according to Ryan and Deci (2013) SDT provides a framework for explaining three categories of needs of students: (1) sense of competence, (2) relatedness (belonging) to others, and (3) autonomy. Competence involves

understanding how to, and believing that one can, achieve various outcomes. Relatedness involves developing satisfactory connections to others in one's social group. Autonomy involves initiating and regulating one's own actions. Most of the research in SDT focuses on these three needs (Jang, Reeve, Ryan, & Kim, 2009; Vansteenkiste, Simons, Lens, Sheldon, & Deci 2004). In this study, SDT is used to examine the leadership practices and teaching practices that are affective in increasing students' motivation and engagement in learning.

### 3. Research Methodology

This study employed a qualitative research design involving semi-structured interviews conducted with school principals and teachers, in low socio-economic districts in Sri Lanka.

#### 3.1 Sampling

For this study, Monaragala and Nuwara Eliya districts were chosen; both have recorded the highest attrition rates of junior students from secondary schools in Sri Lanka (except war affected districts). According to the records of both Provincial Departments of Education there were 119 type 2 government schools in three educational zones in Monaragala district and 172 such schools in five educational zones in Nuwara Eliya district. Five Sinhala medium schools with high attrition rates were chosen representing all three education zones in Monaragala district and five such Tamil medium schools were chosen using purposive sampling, representing all five education zones in Nuwara Eliya district. Accordingly, five principals and five teachers were recruited to represent all the sample of schools using purposive sampling method.

Table 3.1: Study sample

District	No. of schools	No. of principals	No. of teachers
Monaragala (Sinhala)	5	5	5
Nuwara Eliya (Tamil)	5	5	5
Total	10	10	10

#### 3.2 Data collection method

Semi-structured interviews were used for collection data for this study. The interviews focused on examining principals perceptions in the following areas: characteristics of low motivated students, school related conditions affecting students motivation and engagement in

learning, actions taken by the school to increase their motivation - direct and indirect initiatives, future plans etc. Interviews with teachers focused on: characteristics of low motivated students, school related conditions affect students motivation and engagement in learning, tactics employed to motivate students, disagreements with low motivated students about unfinished work, bullying, truancy, failure to listen etc. and situations causing low motivated students to reduce their motivation and engagement in learning further- receiving low marks for tests, problems with classmates, being embarrassment in front of others, assessment procedures taken and allowing classroom discussions etc.

### 3.3 Data analysis method

Interviews were analysed using thematic analysis. Thematic analysis is a method for identifying, analysing and reporting patterns (themes) within data (Braun & Clarke, 2006, p.79). Further, a theme captures something important about the data in relation to the research question, and represents some level of patterned response or meaning within the data set (p.82). First, students responses coded manually, and then categories identified. After that, suitable sub themes and main themes were identified.

## 4. Results and discussion

According to the thematic analysis of principals and teachers interview responses, two main themes were emerged in relation to the school conditions: (1) impact of human conditions and (2) impact of physical conditions. For each theme, a set of sub-themes were identified and are presented here with qualitative description.

### 4.1 School conditions impacting students' motivation and engagement in learning

#### 4.1.1 Impact of human conditions

Under the theme of impact of human conditions four sub-themes were emergent: apathetic leadership, lack of teacher excellence, students' lack of intrinsic motivation and influence of peers.

- **Apathetic leadership**

Almost all Sinhala and Tamil medium school principals are disinterested or show low levels of interest in being a principal in that kind of school. As one principal expressed, “I do not get any support from either school internal or external community. Sometimes, I have to spend my own money for school activities. I am unmotivated in being a principal of this school”. Most of the teachers also mentioned that their school leadership is not powerful or supportive. Teachers frequently stated that they do not want to increase achievement of students”. Tamil medium teachers expressed that, “Our principal does not want to do anything to increase students learning”; “He does not want to get any resources for the school. He is planning to get a transfer to another school”.

As mentioned by Guay and Valleland (1997), SDT postulates three essential elements of learning: perceived competence, belonging, and autonomy; each of which can be fostered by teachers in classroom contexts. School leadership is highly impactful for students learning. Hattie stated that the effective principal is the one who creates “... a climate of psychological safety to learn ... a focus of discussion on student learning ...” (2009, p. 5). Therefore, it could be expressed that the school leaders of these schools, particularly in Tamil medium schools do not have belonging with teachers and students. And, it is particularly impact in relation to increase students’ self-determination.

- **Lack of teacher excellence**

Lack of teachers and lack of qualified teachers was a common issue identified in the interviews. This compromised their ability to support successful student-teacher relationships and design of teaching tasks that provided autonomy. This is surprising as most of the teachers in Tamil schools are qualified to advanced level, but do not have a degree and are not formally trained for teaching. According to Reeve, Jang, Carrell, Jeon and Barch (2004), trained teachers displayed significantly more autonomy supportive behaviours than untrained teachers. As a whole, schools do not have qualified and trained teachers for mathematics, science, English and aesthetic subjects. Most of the time teachers do not have mastery of the subject matter they are teaching. “In our school we do not have a maths teacher. So, I teach maths. I do not have training on teaching maths. What to do?”; “I want to cover the syllabus. So, I use a teacher to do that. I cannot think about their proficiency in teaching” stated principals. Autonomy-supportive

practices include listening to student input, providing informative feedback, providing optimally challenging tasks and activities, offering students choices about what to work on or how to complete assignments, and showing students affection (Assor & Kaplan, 2001; Black & Deci, 2000). Students experience competence when challenged and given prompt feedback (American Psychological Association, 2004). It seems that in those school teachers are unable to provide such support to their students to increase their autonomy and competence, due to their own lack of competency to teach.

Teachers' negative attitudes appear to impact students learning "I do teaching because I do not have another job to do"; "Teaching for this kind of students is very stressful"; "They [students] do not engage in learning. They have lots of family issues. I cannot motivate them at all" mentioned teachers. As mentioned by principals "Some teachers do not want to cover the syllabus"; "They take lots of leave"; "I know they punish to students"; "Some teachers are not friendly with students"; "their teacher-student relationship is minimal"; "They are also not motivated in teaching"; "They also do not have targets. So, how they guide students to have life targets". Teacher supports have been referred to in the literature as one important means of developing students' sense of belonging at school. Further, when teacher support is directed at developing student independence, a student sense of belonging and autonomy are addressed simultaneously (Fried & Konza, 2013, p, 28). It seems that teachers do not provide sufficient support to increase students' competence, relatedness and autonomy in learning.

• **Students' lack of intrinsic motivation**

Most principals mentioned that students do not attend school regularly and they are not motivated to learn. "Actually, they do not know the value of education. They want to earn money"; "Students low attendance is a major problem in our school". Teachers also agreed with the principals responses. Further, they mentioned that students who show low motivation in learning tend to present unfinished work in the classroom and home, are involved in bullying, lying, tardiness and failure to listen. "Actually, I cannot motivate them at all. They do not do anything at class"; "They do not complete home work. They just come to school They do not like to learn. So, how can we praise them?"; "They tell lots of lies for not coming to school How can they continue their learning without coming continuously?"; "They have lots of pressures in



doing tests and homework” stated Tamil medium teachers. Further, they affirmed that “They always get low marks for tests”, “Cannot realise the classroom demands”, and also they are “Uncertain about the future”. It seems that unmotivated students fail to exercise intrinsic engagement in learning. To promote students’ interest in learning requires them to value their education and receive affirmation of personal capabilities (Thaliah & Hashim, 2008, p.496).

- **Influence of peers**

Both principals and teachers strongly emphasised the impact of peers on students for their motivation and engagement in learning. “Students do not have competitive friends. They all are in the same level. So, there is no competition in the classroom”; “Some of their friends go for work with their fathers and earn money. So, they also want to imitate them”. Teachers mentioned that “They want to deal with elder students. They do lots of misbehaviours with them”; “Since our village is a poor one, lots of robe less students are in every classroom. So, their behaviour negatively impact to all students”; “We cannot get them for cooperative learning at all”. Cooperative learning has been referred to in the literature as a mean of developing students’ sense of belonging at school (Fried & Konza, 2013, p.28). Students experience relatedness when they perceive others listening and responding to them. When these three needs are met, students are more intrinsically motivated and actively engaged in their learning (American Psychological Association, 2004). According to teachers responses these students doubt their sense of belonging in learning.

#### 4.1.2 Impact of physical conditions

Under the theme of impact of physical conditions, three sub themes were emergent: difficult subject matters, lack of classroom resources and lack of school resources.

- **Difficult subject matters**

In accordance with almost all principals and teachers, students are low motivated in learning mathematics, science and English. “Most of the students hate learning maths, and their achievement is also very low”; “They cannot cope with maths, science and particularly with English”; “I think the subject matters of these subjects is too heavy for students and they are not engaged properly in those” all teachers expressed. Further, participants perceived that some of

the teachers, who teach these subjects, do not listen to student input, and they control students' behaviours and they also have pressure in teaching those subjects. Pelletier, Séguin-Lévesque & Legault (2002) observed that the more teachers perceive pressure from having to comply with an imposed curriculum, pressure toward performance standards etc., the less autonomous they are toward teaching, which in turn was associated with teachers being more controlling with students.

- **Lack of classroom resources**

According to both principals and teachers, all of these schools do not have sufficient classroom resources, especially in Tamil schools. As teachers mentioned, "We do not have enough facilities within the classroom to conduct group activities. Even, we do not have enough chairs or desks"; "Actually in our classroom we have very short chairs. The allocated money is not sufficient for purchasing quality inputs. Even though, the amount allocated for one year, they last in the first term"; "We do not have even a globe in our school"; "We do not have a piece of sodium to do an experiment in Science"; "We do not have a science lab. I put all the science materials in to a cupboard. They are older than twenty years. So, chemical reactions are not occurred. So, how can we do group works"; "As a geography teacher, I would like to do group works. I know students also like to do. But we do not have facilities for doing such"; "We do not have separate classrooms. In one building there are four classrooms without partition. So it is very difficult to have group works here", a principal stated. According to Niemiec and Ryan (2009), learning activities in the classroom develops students' perceived competence. It seems that in those schools do not have enough resources to have learning activities and due to that students are unable to practice and master certain competencies.

- **Lack of school resources**

Participant responses acknowledged that the majority of schools, particularly in the Tamil regions do not have a science lab, home science room, library, computer facilities, separated classrooms, sports instruments and aesthetic instruments etc. Further, in these schools there is no sufficient extracurricular activities are held. "I'm teaching Geography. I need to refer some books for doing activities. But there is no library in our school"; "I'm the music teacher in this school. We do not have instruments' to teach. This is very unhappy situation in this school",

teachers stated. According to Niemiec and Ryan (2009), learning activities in the classroom that develop students perceived competence include those that are optimally challenging, those that enable students to access tools they need to succeed and those that provide feedback that emphasises student effectiveness. In relation to the situation of these schools, it is difficult to see how students can adequately develop competency in certain areas or have the opportunities for repeated practice.

#### 4.2 The motivating practices

According to the thematic analysis of principals and teachers interview responses, three main themes were emergent in relation to the practices have been taken to increase junior secondary students' motivation and engagement in learning: (1) parental awareness, (2) individual support and (3) short term initiatives.

##### 4.2.1 Parent awareness

Since, all of the schools face high student absenteeism, most of the principals and teachers have taken action to make students' parents aware. For the most, parents have not participated in the meetings. They do not appear to value the education of their students. Participants expressed these concerns, "Their parents are illiterate. They do not value the education. Even, they do not come for the meetings"; "When I meet some parents, I asked the reason for not coming for the meeting. They just laugh and do not say anything" teachers stated. Hardré, Sullivan, and Roberts (2008) proposed that the support of teachers and their families at both school and community levels are essential for improving achievement in rural schools. It could be exposed that, interventions are minimal in Tamil-medium schools and these kinds of interventions were not successful in those low socio- economic areas.

##### 4.2.2 Individual support

The majority of principals and teachers mentioned that they counsel the students who have problems. "Some girls have problems regarding sexual abuse. We counsel them to continue the education. We do not have a counselling teacher at our school. But we do the best as we can"; "Some students have problem with peers. They always fight with each other. So, we bring them to the principal office and advice"; "Most of the students have family problems. We encourage

As per the principals and teachers responses about the school conditions related to early adolescents' motivation and engagement in learning, two themes were identified: impact of physical conditions and human conditions. In relation to the main practices taken place to increase students' motivation and engagements in learning, three themes were identified: parental awareness, individual support and short term initiatives. It could be concluded that, there are numerous issues exist in schools which affect students' motivation and engagement in learning. Also, the motivating practices of principals and teachers do not successfully address these problems, particularly in Tamil-medium schools. Therefore, meeting students' needs for competence, autonomy and relatedness and thus, increase student self-determination is a problematic endeavour. Researchers have developed and evaluated instructional interventions and supports to encourage self-determination in students. Therefore, it is imperative that schools address this situation immediately. Interventions are needed that foster students' intrinsic motivation and meet students' needs for competence, autonomy and relatedness. In turn, these will positively affect students study behaviours leading to the successes that contribute to their engagement with school. In this way, attendance will become more regular and pupil attrition may be reduced. It is imperative that future research examines the same constructs across different subjects.

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Appendix 1

Table 1.1: *The levels of education in Sri Lanka*

Level	Age group	Grades
Primary	5-9 years old	1-5
Junior(lower) secondary	10-13 years old	6-9
Senior(upper) secondary	14-15 years old	10-11
Collegiate	16-17 years old	12-13

Appendix 2

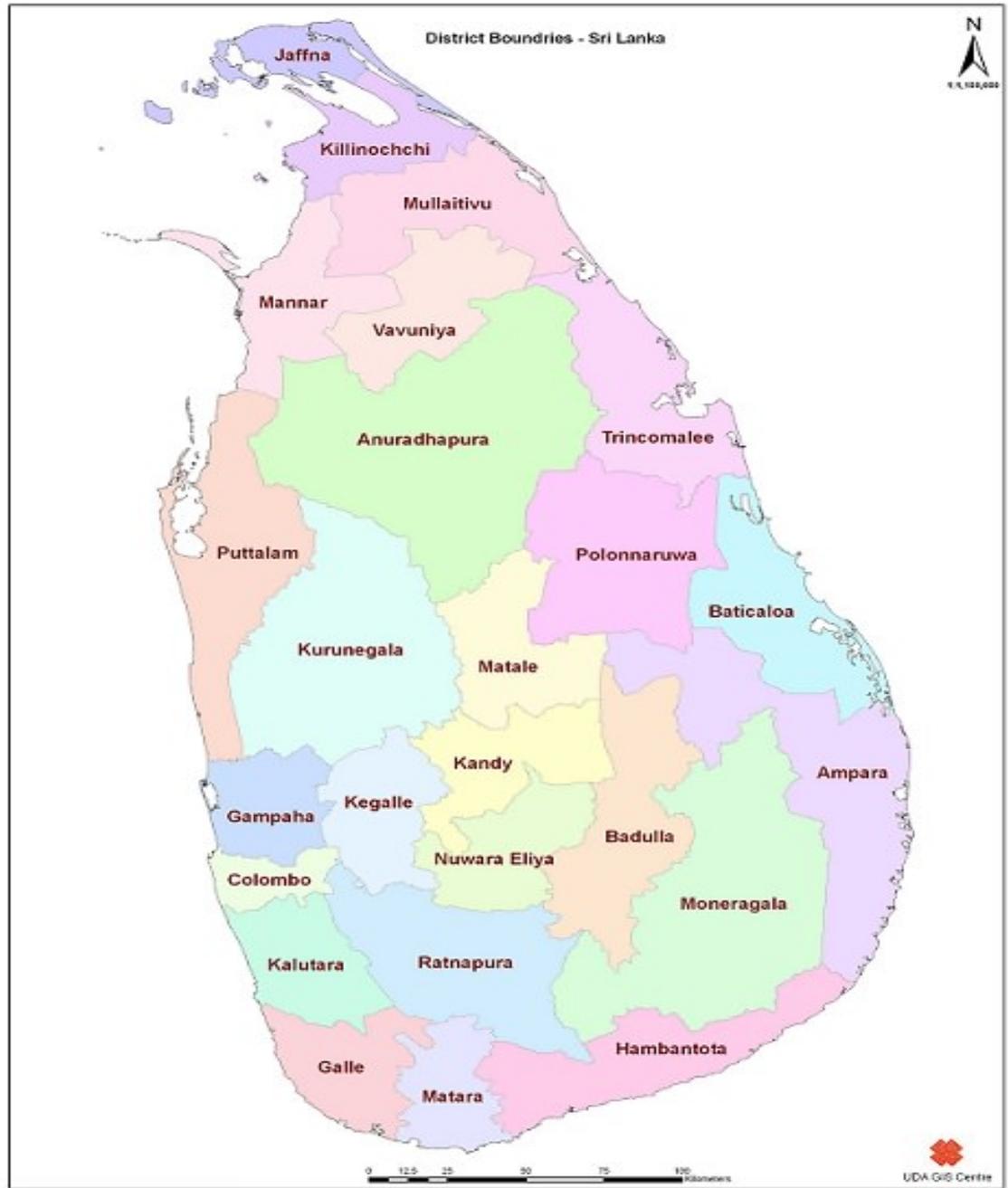
Table 1.2: *Types of schools in Sri Lanka*

Type	Description of schools
1AB	Offer instruction for grades 1–13 or grades 6–13 in all curriculum streams (Science, Commerce and Arts) in GCE Advanced Level
1C	Offer instruction for grades 1–13 or grades 6–13 -only in Arts and Commerce streams in GCE Advanced Level
Type 2	Offer instruction for grades 1–11
Type 3	Offer instruction for grades 1–5 or, in a few instances, for grades 1–9

**APPENDIX F: Provinces and districts of Sri Lanka**



**Figure F.1: Provinces of Sri Lanka**  
(Retrieved from <http://www.crwflags.com/fotw/flags/lk>)



**Figure F.2: Districts of Sri Lanka.**  
 (Retrieved from <http://www.slbfe.lk/page.php?LID=1&MID=103>)

# APPENDIX H: Permission to use the MES-JS for this study

1/21/2018

Gmail - e-delivery of Motivation Materials



perera tyron <perera.tyron@gmail.com>

## e-delivery of Motivation Materials

5 messages

Lifelong Achievement Group <lifelong@lifelongachievement.com>

Tue, Jun 9, 2015 at 3:34 PM

Reply-To: lifelong@lifelongachievement.com

To: perera.tyron@gmail.com

Cc: lifelong@lifelongachievement.com

To Ruwandika Perera (of University of New England, Armidale, NSW, Australia; PhD Student)

We have received your payment for \*1 x license for the Motivation and Engagement Scale Pack (JS) – Research Student Version\*.

### 1. FOR MES PACK AND WORKBOOK

Please find attached the requested materials to be used on the basis of the enclosed terms.

\*The case-sensitive PASSWORD to open the documents has been sent in another email\*

### 2. IF YOU PURCHASED THE ONLINE DATA COLLECTION add-on

Here is the URL to the survey: URL HERE

- it is your responsibility to ensure this link is provided to and accessed by the intended respondents only.

\*The case-sensitive PASSWORD for respondents to open the survey has been sent to you in another email\*

- it is your responsibility to ensure this password is provided to and accessed by the intended respondents only.

It is important to:

- (a) Open the Testing and Administration Guidelines document
- (b) Read the section on online data collection
- (c) Comply with the test run instructions to ensure the online data entry and collection process is operating

[https://mail.google.com/mail/u/0/?ui=2&ik=869ff1bc6d&jsver=NW\\_2aT3fiA0.en.&view=pt&q=lifelong%40lifelongachievement.com&qstrue&search=query...](https://mail.google.com/mail/u/0/?ui=2&ik=869ff1bc6d&jsver=NW_2aT3fiA0.en.&view=pt&q=lifelong%40lifelongachievement.com&qstrue&search=query...) 1/4

as intended.

### 3. IF YOU PURCHASED THE SCORING SERVICE and/or INDIVIDUAL STUDENT PROFILE SHEETS add-ons

Let us know when all data collection is complete and within 1-2 weeks we will send all scores to you as an Excel file and the profile sheets as PDF/Word files. Please note that scores are sent once and that any additional scoring will incur a fee of Aus\$297.00. Also note that Individual Student Profile Sheets are sent once and that any additional Individual Student Profile Sheets will incur a fee of Aus\$297.00.

### 4. IF YOU PURCHASED THE SCHOOL REPORT add-on

When we send student scores to you, we will also provide your School Report. Note that 1 x School Report is provided per license – any additional School Reports will be an additional \$990.00 per Report.

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**perera tyron** <[perera.tyron@gmail.com](mailto:perera.tyron@gmail.com)>  
To: [rperera4@une.edu.au](mailto:rperera4@une.edu.au)

Tue, Jun 9, 2015 at 6:37 PM

[Quoted text hidden]

—  
K.D.R.L.J. Perera  
Senior Lecturer Grade II  
Department of Secondary & Tertiary Education  
Faculty of Education  
The Open University of Sri Lanka

PhD Candidate  
University of New England  
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Wed, Dec 2, 2015 at 9:22 PM

## APPENDIX I- Schools chosen for pilot study and main study

**Table I.1: Schools chosen for pilot study**

Serial No.	School	Education Zone
1	Batuwandara Kanishta Vidyalaya (Colombo district)-Sinhala-medium	Piliyandala
2	Wewita Maithree Maha Vidyalaya(Kalutara district)-Tamil-medium	Horana

### Schools chosen for main study

**Table I.2: Sinhala -Medium schools- Monaragala district**

Serial No.	School	Education Zone
1	Magandanamulla Kanishta Vidyalaya	Monaragala
2	Kalawalaragama Kanishta Vidyalaya	Monaragala
3	Piyananda Kanishta Vidyalaya	Wellawaya
4	Gampanguwa Kanishta Vidyalaya	Wellawaya
5	Ihaawa Kanishta Vidyalaya	Bibila
6	Mari-arawa Vidyalaya	Bibila
7	Kurugama Vidyalaya	Wellawaya

**Table I.3: Tamil-medium schools-Nuwara Eliya district**

Serial No.	School	Education Zone
1	Mahauva Tamil Vidyalaya	Walapane
2	Dayagama Tamil Vidyalaya	Nuwara Eliya
3	Kalapuwanam Tamil Vidyalaya	Kotmale
4	Kirkswald Tamil Vidyalaya	Hatton
5	Vivekanada Tamil Vidyalaya	Hanguranketha

# APPENDIX J: Sample Motivation and Engagement score sheet



Motivation and Engagement Scores for-----

Age \_\_\_\_\_ years      Testing Date \_\_\_\_\_

TABLE 1. BOOSTERS — higher MQs are better	Multiply by 5*	Raw Score / 100 ROUNDED	mo*	Grade
<b>SB, Self belief</b> Q13 + Q23 + Q33 + Q40 = x	5*	=		
<b>P, Persistence</b> Q1 + Q6 + Q28 + Q36 = x	5*	=		
<b>LF, Learning focus</b> + Q25 + Q26 = x	5*	=		
<b>V, Valuing</b> Q4 + Q14 + Q34 + Q41 = x	5*	=		
<b>TM, Task management</b> Q3 + Q17 + Q32 + Q44 = x	5*	=		
<b>PLN, Planning</b> Q21 + Q27 + Q30 + Q39 = x	5*	=		

TABLE 2. MUFFLERS AND GUZZLERS — lower MQs are better	Multiply by 5*	Raw Score / 100 ROUNDED	mb**	Grade
<b>D, Disengagement</b> Q8 + Q15 + Q22 + Q29 = x	5*	=		
<b>SS, Self-sabotage</b> Q5 + Q24 + Q35 + Q42 = x	5*	=		
<b>UC, Uncertain control</b> Q6 + Q12 + Q16 + Q18 = x	5*	=		
<b>FA, Failure avoidance</b> Q11 + Q20 + Q31 + Q38 = x	5*	=		
<b>A, Anxiety</b> Q10 + Q19 + Q37 + Q43 = x	5*	=		

TABLE 3. GLOBAL MQs	MO***	Grade
<b>Global Booster Thoughts</b> Average* of SB and LE and V MQs		
<b>Global Booster Behaviors</b> Average* of P and TM and PLN MQs		
<b>Global Muffer</b> Average* of UC and FA and AMQs		
<b>Global Guzzler</b> Average* of D and SS MQs		

only if 3 items answered, multiply by .67; if less than 3 items answered, do not assign a score  
 \*\* Only compute an average if student has a score for every factor on this dimension; \*\*\* Non-normalized  
 100 is the average MQ for a large 'normative' sample of school students  
 If a cell is blank, the student has not answered enough questions for that factor to calculate a score and grade  
 Booster Grades range from A ('Strength': >1 SD above 100) to D ('Needs More Work': >1 SD below 100)  
 Muffer and Guzzler Grades range from A ('Strength': >1 SD below 100) to D ('Needs More Work': >1 SD above 100)  
 High School Norms are based on Australian students and MQs may not be reliable for students under 12 years and students over 19 years  
 Junior School Norms are based on Australian students and MQs may not be reliable for students under 10 years and students over 12 years

## APPENDIX K: MQs for boosters

Self-belief M=85 SD=14		Valuing M=89 SD=12		Learning focus M=85 SD=14		Planning M=73 SD=19		Task Management M=78 SD=18		Persistence M=77 SD=15	
Raw	MQ	Raw	MQ	Raw	MQ	Raw	MQ	Raw	MQ	Raw	MQ
14	24	14	6	14	24	14	53	14	47	14	37
15	25	15	8	15	25	15	54	15	48	15	38
16	26	16	9	16	26	16	55	16	48	16	39
17	27	17	10	17	27	17	56	17	49	17	40
18	28	18	11	18	28	18	57	18	50	18	41
19	29	19	13	19	29	19	57	19	51	19	42
20	30	20	14	20	30	20	58	20	52	20	43
21	31	21	15	21	31	21	59	21	53	21	44
22	33	22	16	22	33	22	60	22	53	22	45
23	34	23	18	23	34	23	61	23	54	23	46
24	35	24	19	24	35	24	61	24	55	24	47
25	36	25	20	25	36	25	62	25	56	25	48
26	37	26	21	26	37	26	63	26	57	26	49
27	38	27	23	27	38	27	64	27	58	27	50

28	39	28	24	28	39	28	64	28	58	28	51
29	40	29	25	29	40	29	65	29	59	29	52
30	41	30	26	30	41	30	66	30	60	30	53
31	42	31	28	31	42	31	67	31	61	31	54
32	43	32	29	32	43	32	68	32	62	32	55
33	44	33	30	33	44	33	68	33	63	33	56
34	45	34	31	34	45	34	69	34	63	34	57
35	46	35	33	35	46	35	70	35	64	35	58
36	48	36	34	36	48	36	71	36	65	36	59
37	49	37	35	37	49	37	72	37	66	37	60
38	50	38	36	38	50	38	72	38	67	38	61
39	51	39	38	39	51	39	73	39	68	39	62
40	52	40	39	40	52	40	74	40	68	40	63
41	53	41	40	41	53	41	75	41	69	41	64
42	54	42	41	42	54	42	76	42	70	42	65
43	55	43	43	43	55	43	76	43	71	43	66
44	56	44	44	44	56	44	77	44	72	44	67
45	57	45	45	45	57	45	78	45	73	45	68
46	58	46	46	46	58	46	79	46	73	46	69
47	59	47	48	47	59	47	79	47	74	47	70

48	60	48	49	48	60	48	80	48	75	48	71
49	61	49	50	49	61	49	81	49	76	49	72
50	63	50	51	50	63	50	82	50	77	50	73
51	64	51	53	51	64	51	83	51	78	51	74
52	65	52	54	52	65	52	83	52	78	52	75
53	66	53	55	53	66	53	84	53	79	53	76
54	67	54	56	54	67	54	85	54	80	54	77
55	68	55	58	55	68	55	86	55	81	55	78
56	69	56	59	56	69	56	87	56	82	56	79
57	70	57	60	57	70	57	87	57	83	57	80
58	71	58	61	58	71	58	88	58	83	58	81
59	72	59	63	59	72	59	89	59	84	59	82
60	73	60	64	60	73	60	90	60	85	60	83
61	74	61	65	61	74	61	91	61	86	61	84
62	75	62	66	62	75	62	91	62	87	62	85
63	76	63	68	63	76	63	92	63	88	63	86
64	78	64	69	64	78	64	93	64	88	64	87
65	79	65	70	65	79	65	94	65	89	65	88
66	80	66	71	66	80	66	94	66	90	66	89
67	81	67	73	67	81	67	95	67	91	67	90

68	82	68	74	68	82	68	96	68	92	68	91
69	83	69	75	69	83	69	97	69	93	69	92
70	84	70	76	70	84	70	98	70	93	70	93
71	85	71	78	71	85	71	98	71	94	71	94
72	86	72	79	72	86	72	99	72	95	72	95
73	87	73	80	73	87	73	100	73	96	73	96
74	88	74	81	74	88	74	101	74	97	74	97
75	89	75	83	75	89	75	102	75	98	75	98
76	90	76	84	76	90	76	102	76	98	76	99
77	91	77	85	77	91	77	103	77	99	77	100
78	93	78	86	78	93	78	104	78	100	78	101
79	94	79	88	79	94	79	105	79	101	79	102
80	95	80	89	80	95	80	106	80	102	80	103
81	96	81	90	81	96	81	106	81	103	81	104
82	97	82	91	82	97	82	107	82	103	82	105
83	98	83	93	83	98	83	108	83	104	83	106
84	99	84	94	84	99	84	109	84	105	84	107
85	100	85	95	85	100	85	109	85	106	85	108
86	101	86	96	86	101	86	110	86	107	86	109
87	102	87	98	87	102	87	111	87	108	87	110

88	103	88	99	88	103	88	112	88	108	88	111
89	104	89	100	89	104	89	113	89	109	89	112
90	105	90	101	90	105	90	113	90	110	90	113
91	106	91	103	91	106	91	114	91	111	91	114
92	108	92	104	92	108	92	115	92	112	92	115
93	109	93	105	93	109	93	116	93	113	93	116
94	110	94	106	94	110	94	117	94	113	94	117
95	111	95	108	95	111	95	117	95	114	95	118
96	112	96	109	96	112	96	118	96	115	96	119
97	113	97	110	97	113	97	119	97	116	97	120
98	114	98	111	98	114	98	120	98	117	98	121
99	115	99	113	99	115	99	121	99	118	99	122
100	116	100	115	100	116	100	121	100	118	100	123

MQs for mufflers and guzzlers

Anxiety M=61 SD=19		Failure avoidance M=53 SD=23		Uncertain control M=50 SD=19		Self-sabotage M=40 SD=19		Disengagement M=35 SD=16	
Raw	MQ	Raw	MQ	Raw	MQ	Raw	MQ	Raw	MQ
14	63	14	75	14	72	14	79	14	80
15	64	15	75	15	72	15	80	15	81
16	64	16	76	16	73	16	81	16	82
17	65	17	77	17	74	17	82	17	83
18	66	18	77	18	75	18	83	18	84
19	67	19	78	19	76	19	83	19	85
20	68	20	78	20	76	20	84	20	85
21	68	21	79	21	77	21	85	21	87
22	69	22	80	22	78	22	86	22	88
23	70	23	80	23	79	23	87	23	89
24	71	24	81	24	79	24	87	24	90
25	72	25	82	25	80	25	88	25	91
26	72	26	82	26	81	26	89	26	92
27	73	27	83	27	82	27	90	27	93
28	74	28	84	28	83	28	91	28	93

29	75	29	84	29	83	29	91	29	94
30	76	30	85	30	84	30	92	30	95
31	76	31	86	31	85	31	93	31	96
32	77	32	86	32	86	32	94	32	97
33	78	33	87	33	87	33	94	33	98
34	79	34	88	34	87	34	95	34	99
35	79	35	88	35	88	35	96	35	100
36	80	36	89	36	89	36	97	36	101
37	81	37	90	37	90	37	98	37	102
38	82	38	90	38	91	38	98	38	103
39	83	39	91	39	91	39	99	39	104
40	83	40	92	40	92	40	100	40	105
41	84	41	92	41	93	41	101	41	106
42	85	42	93	42	94	42	102	42	107
43	86	43	93	43	94	43	102	43	108
44	87	44	94	44	95	44	103	44	108
45	87	45	95	45	96	45	104	45	109
46	88	46	95	46	97	46	105	46	110
47	89	47	96	47	98	47	106	47	111
48	90	48	97	48	98	48	106	48	112

49	91	49	97	49	99	49	107	49	113
50	91	50	98	50	100	50	108	50	114
51	92	51	99	51	101	51	109	51	115
52	93	52	99	52	102	52	109	52	116
53	94	53	100	53	102	53	110	53	117
54	94	54	101	54	103	54	111	54	118
55	95	55	101	55	104	55	112	55	119
56	96	56	102	56	105	56	113	56	120
57	97	57	103	57	106	57	113	57	121
58	98	58	103	58	106	58	114	58	122
59	98	59	104	59	107	59	115	59	123
60	99	60	105	60	108	60	116	60	123
61	100	61	105	61	109	61	117	61	124
62	101	62	105	62	109	62	117	62	125
63	102	63	106	63	110	63	118	63	126
64	102	64	107	64	111	64	119	64	127
65	103	65	107	65	112	65	120	65	128
66	104	66	108	66	113	66	121	66	129
67	105	67	108	67	113	67	121	67	130
68	106	68	109	68	114	68	122	68	131

69	106	69	110	69	115	69	123	69	132
70	107	70	110	70	116	70	124	70	133
71	108	71	111	71	117	71	124	71	134
72	109	72	112	72	117	72	125	72	135
73	109	73	113	73	118	73	126	73	136
74	110	74	114	74	119	74	127	74	137
75	111	75	114	75	120	75	128	75	138
76	112	76	115	76	121	76	128	76	138
77	113	77	116	77	121	77	129	77	139
78	113	78	116	78	122	78	130	78	140
79	114	79	117	79	123	79	131	79	141
80	115	80	118	80	124	80	132	80	142
81	116	81	119	81	124	81	132	81	143
82	117	82	120	82	125	82	133	82	144
83	117	83	120	83	126	83	134	83	145
84	118	84	121	84	127	84	135	84	146
85	119	85	122	85	128	85	136	85	147
86	120	86	122	86	128	86	136	86	148
87	121	87	123	87	129	87	137	87	149
88	121	88	123	88	130	88	138	88	150

89	122	89	123	89	131	89	139	89	151
90	123	90	124	90	132	90	139	90	152
91	124	91	125	91	132	91	140	91	153
92	124	92	125	92	133	92	141	92	153
93	125	93	126	93	134	93	142	93	154
94	126	94	127	94	135	94	143	94	155
95	127	95	127	95	136	95	143	95	156
96	128	96	128	96	136	96	144	96	157
97	128	97	129	97	137	97	145	97	158
98	129	98	129	98	138	98	146	98	159
99	130	99	130	99	139	99	147	99	160
100	131	100	131	100	139	100	147	100	161

## **APPENDIX L: Students interview script-English-medium**

Thank you for taking the time to speak with me today. As you know, I am interested in understanding the school-related conditions that contribute to student motivation and engagement during junior secondary years. I will be asking you questions about your perceptions of school, your learning experiences, and certain school-related conditions that often impact motivation and engagement in learning. I plan to use the information I obtain during my research to help school leaders create educational environments that better support students in their learning.

Before we begin the interview, I want to remind you that your responses are completely confidential. If for any reason you would like to stop the interview at any time. Please let me know if you have any questions before we begin.

Again, many thanks for your participation!

1. School:
2. Tell me about your life at school.
3. What do you most like about your school and why?
4. What do you least like about your school and why?
5. What are the biggest differences between primary years and junior secondary years?
6. Which of these differences has been the most challenging to you?
7. During the year, are there any times, have you been less interested in school? If yes, why?
8. What was the best learning experience you have ever had?
9. Please describe the qualities of your all-time favourite teacher.
10. Do you ever get bored in class? Please explain.
11. Do you ever act out in class? Please explain.
12. Do you ever stop listening to the teacher in class? Please explain.
13. Do you understand the hopes of your teacher? Please explain.

14. How often do you have disagreements with your teachers about?

- 1.Unfinished work
- 2.Bullying
- 3.Truancy
- 4.Lying
- 5.Boring lessons
- 6.Verbal threats of class failure
- 7.Corporal punishment
- 8.Failure to listen

15. Please identify whether these situations cause to decrease your motivation and engagement in learning.

- 1.Failing a test
- 2.Unrealistic classroom demands
- 3.Uncertain future
- 4.Problems with peers/classmates
- 5.Any situation that threatens self-esteem
- 6.Disagreements with teachers
- 7.Being embarrassed in front of peers/classmates
- 8.Only one type of assessment in a course
- 9.Not allowing any classroom discussion or questions

16. Are you satisfied with the facilities and availability of resources in your school? Please explain.

17. Are there any other situations that cause you less motivated at school? Please explain.

18. How do you handle pressure so that you can continue to learn?
19. What are the most important things teacher(s) could do to increase your motivation and engagement in learning?
20. What could your school do differently or more to help you become a more interested student in learning?
21. What could you do differently or more to become more interested in learning?
22. Is there anything else you would like to add?

Thanks for your cooperation.

## **APPENDIX M: Teachers interview script-English-medium**

Thank you for taking the time to complete this interview. As you may know, I am examining the school related-conditions that contribute to student motivation and engagement during the junior secondary years. I have recently surveyed two hundred eighth grade students and have conducted follow up interviews with thirty low motivated students. The student interviews focussed on their perceptions of their school, their learning experiences, school-related conditions that often impact motivation and school practices to increase their motivation and engagement towards learning. By participating in this survey, you are helping me to analyse a critical issue. I plan to use the information I obtain during my doctoral research to help school leaders create educational environments that better support students in their learning.

Before you begin the interview, please know that your participation is voluntary and your responses are completely confidential. If for any reason you would like to stop participating, please feel free to do so.

Again, many thanks for your participation!

1. School:
2. Average number of students in classroom:
3. Years teaching overall:
4. Years teaching eighth grade:
5. What do you believe to be the qualities of an excellent teacher?
6. How do you gain and sustain students' attention in your class?
7. Approximately what percentages of students in your classroom have low achievement?
8. What conditions do you believe contribute to students being low motivated in their learning?

9. Do you believe school-related conditions contribute to students being low motivated in their learning? What are they? Teachers' behaviour, peers, curriculum, school administration, school facilities etc...
10. What are the main tactics that you employ to motivate students in your class? What tactics do you find that are mostly effective regarding this? Why/what is it that makes them effective?
11. How often do you have disagreements with your low motivated students about the following?
  1. Unfinished work
  2. Bullying
  3. Truancy
  4. Lying
  5. Failure to listen
12. Please identify whether these situations cause your low motivated students to reduce their motivation and engagement in learning.
  1. Get low marks for tests
  2. Unrealistic classroom demands
  3. Uncertain future
  4. Problems with peers/classmates
  5. Any situation that threatens self-esteem
  6. Disagreements with teachers
  7. Being embarrassed in front of peers/classmates
  8. Only one type of assessment in a course
  9. Not allowing any classroom discussion or questions
13. Have you ever been trained or attended a workshop on early adolescents emotional, social, and behavioural needs and supports?
14. What could your school do differently or more to help you to motivate junior secondary students?
15. What could your students do differently to engage in learning?

16. What do you do to increase those students' motivation and engagement in learning?
17. Is there anything else you would like to add?

Thanks for your cooperation.

## **APPENDIX N: Principals interview script-English-medium**

Thank you for taking the time to complete this interview. As you may know, I am examining the school-related conditions that contribute to student motivation and engagement during the junior secondary years. I have recently surveyed two hundred eighth grade students and have conducted follow up interviews with twenty low motivated students. The student interviews focussed on their perceptions of their school, their learning experiences, school-related conditions that often impact learning and school practices to increase their motivation and engagement towards learning. By participating in this interview, you are helping me to analyse a critical issue. I plan to use the information I obtain during my doctoral research to help school leaders create educational environments that better support students in their learning.

Before you begin the interview, please be aware that your participation is voluntary and your responses are completely confidential. If for any reason you would like to stop participating, please feel free to do so.

Again, many thanks for your participation.

### 1. School:

Service in this school: Overall service:

2. Think about students you consider un/low motivated in learning. What are the characteristics of these students?
3. What conditions do you believe contribute to students having low motivation in their learning?
4. Do you think that school- related conditions are caused for low motivation in learning? What are they? You might consider Exam, work pressure, teachers' behaviour, school facilities, peers, punishments, curriculum, school administration, etc...
5. Could you please tell me about if any teachers have received a training on early adolescents emotional, social, and behavioural needs and supports?

6. What could your school do differently to help your teachers to motivate and engage junior secondary students in learning?
7. What could you do for your school junior secondary students to become more motivated and engaged in learning?  
What role? Influence does the teacher have in increasing the motivation of students? Can you provide examples of where this has been successful?
8. Explain your leadership role/style to increase junior secondary students' motivation and engagement in learning?
  - direct initiatives
  - For teachers
9. What teachers could do to increase students' motivation and engagement in learning?
10. What students could do to increase their motivation and engagement in learning?
11. Is there anything else you would like to add?

Thanks for your cooperation.

# APPENDIX O: Students, Teachers and Principals interview scripts- Sinhala-medium

පෙළඹීම සහ නියුක්තිකරණය

ශිෂ්‍ය සම්මුඛ සාකච්ඡා කේතනය

මා සමඟ කතා කිරීමට කාලය ලබාදීම ගැන ස්තූතියි! ඔබ දන්නා පරිදි මම කණිෂ්ඨ ද්විතියික අවධියේ දී ශිෂ්‍යයන්ගේ පෙළඹීම සහ නියුක්තිකරණය කෙරෙහි දායකත්වයක් දක්වන පාසල ආශ්‍රිත සාධක පිළිබඳව අවබෝධයක් ලබා ගැනීමට කැමැත්තෙන් පසුවෙමි.

මෙහිදී මා විසින් පාසල පිළිබඳව ඔබගේ අදහස් ඔබගේ ඉගෙනුම් අත්දැකීම් සහ ඔබගේ ඉගෙනුම කෙරෙහි පෙළඹීම සහ නියුක්තිකරණයට බලපාන පාසල ආශ්‍රිත සාධක පිළිබඳව ඔබගෙන් ප්‍රශ්න කිහිපයක් විමසනු ලැබේ. මාගේ අධ්‍යයනය සඳහා ලබා ගන්නා දත්ත ශිෂ්‍යයන්ගේ ඉගෙනුමට වඩා හොඳ අධ්‍යාපනික පරිසරයක් නිර්මාණය කිරීම සඳහා පාසල් පාලකයන්ට සහය වීම සඳහා භාවිත කිරීමට සැලසුම් කරනු ලැබේ.

සම්මුඛ සාකච්ඡාව ඇරඹීමට ප්‍රථම ඔබට මතක් කළ යුතු දෙය නම් ඔබගේ ප්‍රතිචාර මුද්‍රමගින්ම රහසිගත බවය කුමන හෝ තේතුවක් මත ඔබට අවශ්‍ය නම් සම්මුඛ සාකච්ඡාව අතරමැදි දී නතර කළ හැක සම්මුඛ සාකච්ඡාව ඇරඹීමට පෙර ඔබට ගැටලුවක් වේ නම් සඳහන් කරන්න.

නැවතත් ඔබගේ සහභාගිත්වයට බෙහෙවින් ම ස්තූතියි!

01. පාසල
02. ඔබගේ පාසල් පිවිතය පිළිබඳව විස්තර කරන්න
03. ඔබ පාසලේ වඩාත් ශ්‍රිය කරන්නේ කුමකට ද? ඒ ඇයි?
04. ඔබ පාසලේ වඩාත් අප්‍රිය කරන්නේ කුමකට ද? ඒ ඇයි?
05. ප්‍රාථමික සහ කණිෂ්ඨ ද්විතියික අවධිය අතර ඇති ප්‍රධානතම වෙනස්කම් මොනවා ද?
06. ඒවායින් ඔබට වඩාත් ප්‍රශ්නකාරී වූයේ කුමන වෙනස්කමද?
07. පසුගිය වසරේ ඔබට පාසල කෙරෙහි ඇති කැමැත්ත අඩු වූ අවස්ථා තිබුණේද? “ඔව්” නම් ඒ ඇයි?
08. ඔබ මෙතෙක් ලද හොඳම ඉගෙනුම් අත්දැකීම කුමක්ද?
09. කරුණාකර ඔබ හැමවිටම කැමැත්තෙන් පසුවන ගුරුකරුවන්ගේ ගුණාංග විස්තර කරන්න.
10. ඔබ පන්තියේදී වසා වූ සහ කම්මැලි ස්වභාවයෙන් පසු වේද? කරුණාකර පැහැදිලි කරන්න.

11. ඔබ පන්තියේදී අදාළ කාර්යයන් නොකර සිටියදී? කරුණාකර පැහැදිලි කරන්න.
12. ඔබ පන්තියේදී ගුරුවරයාට සවින්ද්‍රිම නවත්වන්නේද? කරුණාකර පැහැදිලි කරන්න.
13. ඔබ පිළිබඳව ඔබගේ ගුරුවරයා භූමි ඇති බලාපොරොත්තු මොනවාදැයි ඔබ දන්නවාද? කරුණාකර පැහැදිලි කරන්න.
14. ඔබ, ඔබගේ ගුරුවරයා සමඟ ඵකඟතාවට පත් නොවූ අවස්ථා කොතෙක් වේද?

1. වැඩ සිම නොකිරීම	
2. හිරිහැර කිරීම	
3. කට්ටි පැහීම	
4. අසහන සීම	
5. හිරිස පාඩම්	
6. අසමර්ථකම්වලට වාචික තර්ජන	
7. ගාථික දඬුවම්	
8. සවින්ද්‍රිමට අසමත්වීම	

15) කරුණාකර පහත දැක්වෙන අවස්ථා ඔබගේ ඉගෙනුම කෙරෙහි ඇති පෙළඹීම සහ නියුක්තිකරණය අඩුවීමට හේතු වූණි දැයි හඳුනාගන්න.

1. විභාගවලදී ලකුණු අඩු වීම	
2. යථාර්ථවාදී නොවන පන්තිකාමට අවශ්‍යතා	
3. අනාගතය පිළිබඳ අවිනිශ්චිතතාව	
4. යහළුවන් සමඟ ගැටුම්	
5. ආත්ම අභිමානයට තර්ජනයක් වන තත්වයන්	
6. ගුරුවරුන් සමඟ ඵකඟ නොවීම	

7. පන්තියේ අන් ශිෂ්‍යයන් ඉදිරියේ අපහසුතාවයට පත්වීම	
8. පාඩම් මාලාවක එක් ආකාරයක ඇගයුම් ක්‍රමයක් පමණක් තිබීම	
9. පන්තිකාමර සාකච්ඡා හෝ ප්‍රශ්නකරණයට ඉඩක් නොමැති වීම	

16) ඔබගේ පාසලේ ඇති පහසුකම් සහ පවතින සම්පත් පිළිබඳව ඔබ තෘප්තිමත් ද?

කරුණාකර පැහැදිලි කරන්න.

17) පාසලේදී ඔබේ ඉගෙනීමට ඇති පෙළඹීම අඩුවීමට හේතු වන වෙනත් දේ තිබේ ද? කරුණාකර පැහැදිලි කරන්න.

18) ඔබට මතු වන පීඩාකාරී තත්ව මග හරවමින් ඉගෙනුමෙහි නිරත වන්නේ කෙසේද?

19) ඔබගේ ඉගෙනීමට ඇති පෙළඹීම සහ නියුක්තිකරණය වැඩි දියුණු කිරීමට ගුරුවරුන් හට කළ හැකි වඩාත් වැදගත් දේ මොනවා ද?

20) ඔබගේ ඉගෙනීමට ඇති පෙළඹීම සහ නියුක්තිකරණය වැඩි දියුණු කිරීමට ඔබගේ පාසලට වෙනත් වශයෙන් හෝ වඩා වැඩි වශයෙන් කළහැකි දේ මොනවාද?

21) ඔබගේ ඉගෙනීමට ඇති රුචිය වැඩිකර ගැනීමට වෙනත් වශයෙන් හෝ වඩා වැඩි වශයෙන් ඔබට කළහැකි දේ මොනවාද?

22) ඔබ මේ සඳහා එකතු කිරීමට කැමති තවත් දේ තිබේද?

ඔබගේ සහයෝගයට ස්තූතියි !

## Teachers Interview Script-Sinhala-medium

### පෙළඹීම සහ නියුක්තිකරණය

#### ගුරුවරුන් සඳහා වන සම්මුඛ සාකච්ඡා ක්ෂේත්‍රය

මෙම සම්මුඛ සාකච්ඡාව සඳහා කාලය වැය කිරීම පිළිබඳව ස්තූතියි! මම කතිෂ්ඨ ද්විතියක අවධියේ ශිෂ්‍යයින්ගේ පෙළඹීම සහ නියුක්තිකරණය කෙරෙහි දායකත්වයක් දැක්වන පාසල ආශ්‍රිත සාධක පිළිබඳව පරීක්ෂාවට ලක් කිරීමට අදහස් කරමි. මව්පියන් මෑතකදී අවචන ශ්‍රේණියේ ශිෂ්‍යයන් 200 ක් සමග සමීක්ෂණයක් දියත් කළ අතර ඉන් තෝරා ගත් අඩු පෙළඹීම සහ නියුක්තිකරණය සහිත ශිෂ්‍යයන් 20ක් සමඟ සම්මුඛ සාකච්ඡා පවත්වන ලදී. එහිදී පාසල පිළිබඳව ඔවුන්ගේ සංජානන ඔවුන්ගේ ඉගෙනුම් අත්දැකීම් පෙළඹීම කෙරෙහි නිරතුරුවම බලපාන පාසල ආශ්‍රිත සාධක සහ ඔවුන්ගේ ඉගෙනුම කෙරෙහි පෙළඹීම සහ නියුක්තිකරණය ඉහළ නැංවීමේ පාසල් ක්‍රියාමාර්ග පිළිබඳව අවධානය යොමු කරන ලදී.

ඔබ මෙම සම්මුඛ සාකච්ඡාව සමග එක් වීමෙන් මා හට වැදගත් ගැටලුවක් විශ්ලේෂණය කිරීමට සහය ලබා දෙනු ලැබේ. මගේ ආචාර්ය උපාධි පරීක්ෂණය සඳහා ලබා ගන්නා තොරතුරු ශිෂ්‍යයන් හට ඔවුන්ගේ ඉගෙනුම සඳහා වඩා සහය දැක්වන අධ්‍යාපනික පරිසරයක් නිර්මාණය කිරීමට පාසල් පාලකයන්ට සහය වීම සඳහා යොදා ගැනීමට අපේක්ෂා කරනු ලැබේ.

සම්මුඛ සාකච්ඡාව ආරම්භ කිරීමට ප්‍රථම දැනගත යුතු කරුණ වන්නේ ඔබගේ සහභාගිත්වය ස්වේච්ඡාවෙන් කළ යුත්තක් බවය. ඔබගේ ප්‍රතිචාර මුද්‍රමනිත්ව රහසිගත වේ. කිනම් හෝ හේතුවක් නිසා ඔබට සම්මුඛ සාකච්ඡාව සඳහා සහභාගි වීම නිතර කිරීමට අවශ්‍ය නම් ඒ සඳහා නිදහස ඇත.

ඔබගේ සහභාගිත්වයට නැවතත් ස්තූතියි!

- 1) පාසල :
- 2) පන්ති කාමරයේ සිටින ශිෂ්‍යයන් ගණන:
- 3) ඉගැන්වීමෙහි නිරත වසර ගණන:
- 4) අවචන ශ්‍රේණියෙහි ඉගැන්වීමෙහි නිරත වසර ගණන:
- 5) ඔබ විශ්වාස කරන පරිදී, විශිෂ්ට ගුරුවරයෙකුගේ ගති ලක්ෂණ මොනවාද?
- 6) ඔබ විසින් ශිෂ්‍යයන්ගේ අවධානය ලබා ගැනීම සහ එය දියුණු පවත්වා ගැනීම සඳහා සිදුකරන්නේ මොනවාද?

- 7) සාමාන්‍යයෙන් ඔබගේ පන්තියේ ශිෂ්‍යයන් කොපමණ ප්‍රමාණයක් අඩු සාධනයක් පෙන්නුම් කරයිද?
- 8) ඔබ විශ්වාස කරන පරිදි, ශිෂ්‍යයන්ගේ ඉගෙනුම කෙරෙහි ඇති පෙළඹීම අඩුවීමට හේතුවන සාධක මොනවාද?
- 9) පාසල ආශ්‍රිත සාධක ශිෂ්‍යයන්ගේ ඉගෙනුම කෙරෙහි ඇති පෙළඹීම අඩුවීමට හේතුවන බව විශ්වාස කරන්නේද? එම සාධක මොනවාද? ශූන්‍ය වර්ගයට සම වයස් කණ්ඩායම්, විෂයමාලාව, පාසල් පරිපාලනය, පාසල් පහසුකම් ආදී.
- 10) ඔබේ පන්තියේ ශිෂ්‍යයන් ඉගෙනුම කරා පෙළඹවීමට ඔබ විසින් භාවිතා කරනු ලබන උපායමාර්ග මොනවාද? එහිදී ඔබ සිතන පරිදි වඩාත් කාර්යක්ෂම උපායමාර්ග මොනවාද? ඒවා කාර්යක්ෂම වන්නේ ඇයි? කුමක් නිසාද?
- 11) ඔබගේ පන්තියේ පහළ පෙළඹීමක් සහිත ශිෂ්‍යයන් සමග පහත කරුණු සම්බන්ධයෙන් කොපමණ වාරයක් ඔබගේ එකඟ නොවීම පළවී ඇත් ද?

1. වැඩ නිම නොකිරීම	
2. හිරිහැර කිරීම	
3. කට්ටි පැනීම	
4. අසහන සීම	
5. සවිච්ඡිද්‍රමයට අසමත් වීම	

- 12) පහත දැක්වෙන තත්වයන් ඔබගේ අඩු පෙළඹීමක් සහිත ශිෂ්‍යයන්ගේ ඉගෙනීම කෙරෙහි ඇති පෙළඹීම සහ නියුක්තකරණය අඩු වීමට හේතු වේ ද?

1. විභාගවලදී ලකුණු අඩු වීම	
2. යටිතල වැඩ, නොවන පන්ති කාමර අවශ්‍යතා	
3. අනාගතය පිළිබඳ අවිනිශ්චිතතාව	

4. යහඉවත් සමග ගැටුම්	
5. ආත්ම අභිමානයට තර්ජනයක් වන තත්වයන්	
6. ගුරුවරුන් සමඟ එකඟ නොවීම්	
7. පන්තියේ අතින් ශිෂ්‍යයින් ඉදිරියේ අපහසුතාවයට පත්වීම	
8. පාඩම් මාලාවක එක් ආකාරයට අගයුම් ක්‍රමයක් පමණක් තිබීම.	
9. පන්ති කාමර සාකච්ඡා හෝ ප්‍රශ්නකරණයට ඉඩක් නොමැතිවීම.	

- 13) ඔබ කවදා හෝ නව යෞවනයන්ගේ චිත්තවේගික, සමාජමය සහ වර්ධනමය අවශ්‍යතා සහ ලබාදිය යුතු සහයෝගයන් පිළිබඳව වූ වැඩිලුඵවකට සහභාගී වී හෝ ඒ හා සම්බන්ධ පුහුණුවක් ලබා තිබේද?
- 14) කතිණ්ඩ ද්විතියික ශිෂ්‍යයන්ගේ ඉගෙනීමට පෙළඹීම ඇති කිරීම සඳහා ඔබ පාසල මගින් වෙනස් අයුරින් හෝ වඩා වැඩි වශයෙන් කළ හැකි දේ මොනවාද?
- 15) ඔබගේ ශිෂ්‍යයන්ගට ඉගෙනුමෙහි නියුක්ත වීම සඳහා වෙනස් වශයෙන් ඔවුන්ට කළ හැකි දේ මොනවාද?
- 16) ඔබගේ ශිෂ්‍යයන් ඉගෙනුමෙහි නියුක්ත කරවීම සඳහා වෙනස් වශයෙන් ඔබට කළ හැකි දේ මොනවාද?
- 17) ඔබට මේ සඳහා තවත් එකතු කළ යුතු යමක් තිබේද?

ඔබගේ සහයෝගයට ස්තූතියි !

## Principals Interview Script-Sinhala-medium

### පෙළඹීම සහ නියුක්තිකරණය

#### විදුහල්පතිවරුන් සඳහා වන සම්මුඛ සාකච්ඡා හෙඩුලය

මෙම සම්මුඛ සාකච්ඡාව සඳහා කාලය වාය කිරීම පිළිබඳව ස්තූතියි. මම කණිෂ්ඨ ද්විතියික අවධියේ ශිෂ්‍යයන්ගේ පෙළඹීම සහ නියුක්තිකරණය කෙරෙහි දායකත්වයක් දැක්වන පාසල ආශ්‍රිත සාධක පිළිබඳව පරීක්ෂාවට ලක් කිරීමට අදහස් කරමි. මව්පියන් මැනවිදී අවම වශයෙන් ශ්‍රේණියේ ශිෂ්‍යයන් 200 ක් සමග සමීක්ෂණයක් ක්‍රියාත්මක කළ අතර, ඉන් තෝරාගත් අඩු පෙළඹීම සහ නියුක්තිකරණය සහිත ශිෂ්‍යයන් 20 ක් සමග සම්මුඛ සාකච්ඡා පවත්වන ලදී. එහිදී පාසල පිළිබඳව ඔවුන්ගේ සංජානන, ඔවුන්ගේ ඉගෙනුම් අත්දැකීම්, පෙළඹීම කෙරෙහි නිරතුරුව බලපාන පාසල ආශ්‍රිත සාධක සහ ඔවුන්ගේ ඉගෙනුම කෙරෙහි පෙළඹීම සහ නියුක්තිකරණය ඉහළ නැංවීමේ පාසල් ක්‍රියාමාර්ග පිළිබඳව අවධානය යොමු කරන ලදී.

ඔබ මෙම සම්මුඛ සාකච්ඡාව සමග එක් වීමෙන් මානව වැදගත් ගැටලුවක් විශ්ලේෂණය කිරීමට සහය දැක්වනු ලැබේ. මගේ ආචාර්ය උපාධි පර්යේෂණය සඳහා ලබා ගන්නා තොරතුරු, ශිෂ්‍යයන්ගේ ඉගෙනුම සඳහා වඩා සහය දැක්වන අධ්‍යාපනික පරිසරයක් නිර්මාණය කිරීමට, පාසල් පාලකයන්ට සහයවීම සඳහා යොදා ගැනීමට අපේක්ෂා කරනු ලැබේ.

සම්මුඛ සාකච්ඡාව ආරම්භ කිරීමට පූර්ව දැනගතයුතු කරුණ වන්නේ, ඔබගේ සහභාගිත්වය ස්වේච්ඡාවෙන් කළ යුත්තක් බවය. ඔබගේ ප්‍රතිචාර මුළුමනින්ම රහසිගත වේ. කිනම් හෝ හේතුවක් නිසා ඔබට සම්මුඛ සාකච්ඡාව සඳහා සහභාගිවීම නතර කිරීමට අවශ්‍යනම් ඒ සඳහා නිදහස ඇත.

ඔබගේ සහභාගිත්වයට නැවතත් ස්තූතියි.

1) පාසල

2) ඔබ ඉගෙනුම කෙරෙහි අඩු පෙළඹවීමක් සහිත හෝ පෙළඹවීමක් රහිත සේ සලකන ශිෂ්‍යයන් පිළිබඳව සිතන්න එම ශිෂ්‍යයන්ගේ ගති ලක්ෂණ මොනවා ද?

3) ඔබ විශ්වාස කරන පරිදි ශිෂ්‍යයන් තුළ ඉගෙනුමට අඩු පෙළඹවීමක් ඇති විමට හේතුවන සාධක මොනවා ද?

4) ඔබ සිතන පරිදි ශිෂ්‍යන් තුළ ඉගෙනීමට අඩු පෙළඹවීමක් ඇතිවීමට පාසල ආශ්‍රිත සාධක බලපාන්නේ ද? එසේ නම් ඒ මොනවා ද? විභාග, වැඩ බහුල වීම නිසා ඇතිවන පීඩනය, ගුරුවරුන්ගේ වර්තාව, පාසලේ පහසුකම්, සම වයස් කණ්ඩායම්, දැඩුවම්, පාසල් විෂයමාලාව, පාසල් පරිපාලනය ඇදිය සලකා බැලිය හැකිය.

5) ඔබගේ පාසලේ කුමන හෝ ගුරුවරයෙකු තම යෞවනයන්ගේ විත්තවේගික සමාජය හා වර්තාත්මක අවශ්‍යතා සහ අවශ්‍ය සහයෝගයන් පිළිබඳව පුහුණුවක් ලබා තිබේ ද? කරුණාකර පැහැදිලි කරන්න.

6) කණිෂ්ඨ ද්විතියික ශිෂ්‍යයන් ඉගෙනුම කරා පෙළඹවීම සහ නියුක්ත කිරීම සඳහා ඔබගේ පාසල මගින් ගුරුවරුන්ට ලබා දිය හැකි සහයෝගය කෙබඳු ද?

7) ඔබගේ පාසලේ ශිෂ්‍යයන් ඉගෙනුම කරා පෙළඹවීම සහ නියුක්ත කිරීම සඳහා ඔබට කළ හැක්කේ මොනවා ද? ඔබගේ භූමිකාව කෙබඳු ද? එය ශිෂ්‍යයන්ගේ පෙළඹවීම වැඩි කිරීමට බලපෑවේ ද? එසේ කාර්මික වූ අවස්ථා සඳහා නිදසුන් සැපයිය හැකි ද?

8) ඔබගේ පාසලේ කණිෂ්ඨ ද්විතියික ශිෂ්‍යයන්ගේ ඉගෙනුම කෙරෙහි පෙළඹීම සහ නියුක්තකරණය වැඩි දියුණු කිරීම සඳහා ඔබ අනුගමනය කරනු ලබන නායකත්ව භූමිකාව කෙබඳු ද?

-ඔබගේ සෘජු මැදිහත්වීම්

-ගුරුවරුන් සඳහා කරනු ලබන මැදිහත්වීම්

9) ඔබගේ ශිෂ්‍යයන් ඉගෙනුමෙහි නියුක්ත කරවීම සඳහා වෙනස් වශයෙන් ගුරුවරුන්ට කළ හැකි දේ මොනවා ද?

10) ඔබගේ ශිෂ්‍යයන්ගට ඉගෙනුමෙහි නියුක්ත වීම සඳහා වෙනස් වශයෙන් ඔවුන්ට කළ හැකි දේ මොනවාද?

11) ඔබ මේ සඳහා එකතු කිරීමට කැමති තවත් දේ තිබේද?

ඔබගේ සහයෝගයට ස්තූතියි.

## APPENDIX P: Students, teachers and principals interview scripts-Tamil-Medium

### STUDENTS INTERVIEW SCRIPT

ஊக்கலும் ஈடுபாடும்- மாணவர் நேர்காணல் பிரதி

என்னுடன் உரையாடுவதற்காக இன்றையதினம் நேரத்தினை செலவிடுகின்றமைக்கு நன்றிகள். கனிஸ்ட இடைநிலை வகுப்புகளில் கற்றும் மாணவர்களின் ஊக்கலிலும் ஈடுபாட்டிலும் பங்களிப்புச்செய்யும் பாடசாலை சார்ந்த காரணிகளை விளங்கிக்கொள்வதில் நான் ஆர்வம் கொண்டிருப்பதை நீங்கள் அறிந்திருப்பீர்கள். பாடசாலை, உங்களது கற்றல் அனுபவங்கள் மற்றும் கற்றல் தொடர்பான ஊக்கலிலும் ஈடுபாட்டிலும் பொதுவாகத் தாக்கம் செலுத்தும் குறிப்பான சில பாடசாலை சார்ந்த காரணிகள் என்பவை தொடர்பான உங்களின் புலக்காட்சி பற்றி சில வினாக்களை நான் வினவவுள்ளேன். எனது ஆய்வின் மூலம் பெறப்படும் தகவல்களைப் பயன்படுத்தி மாணவர் கற்றலுக்கு சிறந்த முறையில் ஆதரவளிக்கக்கூடிய கல்விசார் சூழலை உருவாக்கிக் கொள்ள பாடசாலை அதிபர்களுக்கு உதவியளிப்பதற்குத் திட்டமிட்டுள்ளேன்.

நேர்காணலை ஆரம்பிக்குமுன் உங்களது துலங்கல்கள் யாவும் இரகசியமாகப் பேணப்படும் என்பதை உங்களுக்கு ஞாபகப்படுத்த விரும்புகின்றேன். நீங்கள் விரும்பும் எந்த ஒரு காரணத்திற்காகவும் எந்நேரத்திலும் நேர்காணலை இடைநிறுத்த முடியும். நேர்காணலை ஆரம்பிக்கு முன் நீங்கள் ஏதேனும் கேள்வி கேட்க விரும்பினால் தயவு செய்து கேட்கவும்.

மீண்டும் ஒருமுறை உங்களது பங்குபற்றலுக்காக எனது நன்றிகளைத் தெரிவித்துக் கொள்கின்றேன்.

1. பாடசாலை:
2. உங்களது பாடசாலை வாழ்க்கை பற்றி கூறவும்?
3. உங்களது பாடசாலை தொடர்பாக நீங்கள் மிகவும் விரும்புவது எது, காரணம் யாது?
4. உங்களது பாடசாலை தொடர்பாக நீங்கள் மிகக் குறைந்தளவில் விரும்புவது எது, காரணம் யாது?
5. உங்களது ஆரம்ப பாடசாலை வகுப்புகளுக்கும் கனிஸ்ட இடைநிலை வகுப்புகளுக்கும் இடையேயான பாரிய வேறுபாடுகள் யாவை?
6. இவ் வேறுபாடுகளுள் உங்களுக்கு மிகவும் சவாலாக அமைபவை எவை?
7. இந்த வகுப்பில் பாடசாலை மீதான உங்களது நாட்டம் குறைவடைந்த சந்தர்ப்பங்கள் யாதேனும் உண்டா? ஆம் எனில் காரணம் யாது?
8. இதுவரை உங்களுக்குக் கிடைத்தவற்றுள் மிகச் சிறந்த கற்றல் அனுபவம் எது?
9. எப்போதுமே உங்களுக்குப் பிடித்தவரான ஆசிரியரின் பண்புகளை விபரிக்கவும்?
10. எப்பொழுதேனும் உங்களுக்கு வகுப்பறையில் உற்சாகமின்மை ஏற்பட்டதுண்டா? விளக்குக.
11. எப்பொழுதேனும் நீங்கள் வகுப்பில் உடிர்ப்பாக செயலாற்றியதுண்டா? விளக்குக.
12. எப்பொழுதேனும் நீங்கள் வகுப்பில் ஆசிரியர் கூறவளவற்ற செவிமடுக்காது விட்டதுண்டா? விளக்குக.
13. உங்களது ஆசிரியர்களின் எதிர்பார்ப்புக்களை நீங்கள் விளங்கிக்கொண்டீர்களா? விளக்குக.
14. உங்களது ஆசிரியருடன் நீங்கள் உடன்படாத சந்தர்ப்பங்கள் எத்தனைவிற்கு காணப்பட்டன.

புரித்தெய்யப்படாத வேலைகள்	
கொடுமைபடுத்துதல்	
சமூகமனிக்காமை	
பொய்சுறல்	
தாமதம்	
உற்சாகமற்ற பாடங்கள்	
வகுப்பறைத் தோல்விகளுக்கான சொல்சார் அச்சுறுத்தல்கள்	

I certify that this record is an exact duplicate<sup>1</sup>  
of the English version attached.

Head Dept. of Secondary & Tertiary Education  
Faculty of Education  
The Open University of Sri Lanka  
Nawala, Nuwegoda

உடல்நீரியான தண்டனை	
சிறை-மட்டுப்பாடுகள்	
விதிகள்-மற்றும்-விளைவுகள்	
செவிமடுக்கத்-தவறுதல்	
சிறத்தரமான-மண்டலங்கு	
பெரியவர்கள்-அல்லது-அதினாரிகளை-அவழித்தல்	

15. இந்தச் சூழ்நிலைகள் உங்களுள் ஊக்கம் மற்றும் கற்றல் ஈடுபாட்டினை ஏற்படுத்தினவா என்பதைத் தயவு செய்து இனங்காண்க.

பரீட்சையில் சித்தியடையத் தவறுதல்	
ஏனையோரின் தீர்ப்பு அல்லது மதிப்பீடு	
நடைமுறைச் சாததியமற்ற வகுப்பறைக் கேள்விகள்	
ஏதிகாலம்	
சகபாடகளுடனான பிரச்சினைகள்	
சுயமதிப்பீற்று அச்சுறுத்தலாக அமையும் சூழ்நிலைகள்	
ஆசிரியருடனான உடன்பாடுகள்	
சகபாடிகள் முன்னிலையில் அவமானப்படுத்தப்படல்	
பாடநேறி ஒன்றில் தனியொரு வகையான கணிப்பீடு மட்டும் நடத்தப்படல்	
வகுப்பறைக் கலந்துரையாடல்களை விளக்கவேண்டியவை இடமளிக்கப்படுமா	

16. உங்களுக்கு கற்பிக்கப்பட்ட பாடங்கள் மற்றும் பாடத்தலைப்புகள் உங்களுக்கு பிடித்துள்ளனவா? தயவு செய்து விளக்குக.
17. உங்களது பாடசாலையிலுள்ள வசதிகள் மற்றும் வளங்களின் கிடைப்பளவு தொடர்பாக நீங்கள் திருப்திப்படுகிறீர்களா? தயவு செய்து விளக்குக.
18. பாடசாலையின் சுகாதார வசதிகள் திருப்தியாக உள்ளனவா? தயவு செய்து விளக்குக.
19. பாடசாலையில் உங்கள் ஊக்கல் குறைவடையக் காரணமான சூழ்நிலைகள் யாதேனும் உள்ளனவா? தயவு செய்து விளக்குக.
20. நீங்கள் தொடர்ந்து கற்கும் வகையில் உங்களுக்கு ஏற்பட்ட அழுத்தத்தை எவ்வாறு கையாளுகிறீர்கள்?
21. நீங்கள் பங்கேற்றுக் கற்கும் வகையில் பாடங்கள் தொடர்பான உங்களது நாட்டத்தினை ஆசிரியர்கள் எவ்வாறு ஏற்படுத்துகிறார்கள்?
22. கற்றல் தொடர்பான உங்களது நாட்டத்தையும் ஈடுபாட்டையும் அதிகரிப்பதற்காக உங்கள் ஆசிரியர்கள் செய்யக்கூடிய முக்கிய விடயங்கள் யாவை?
23. உங்களை கற்றுல்-நாட்டம்-மிகக்-மாணவராகக் குறைதற்காக-மேலதிகமாக-அல்லது-மாறுபட்ட-விதத்தில் உங்கள் பாடசாலை செய்யக்கூடியது-யாதா?
24. கற்றுல்-மேல் உங்கள் நாட்டத்தினை அதிகரிப்பதற்காக மேலதிகமாக அல்லது மாறுபட்ட விதத்தில் நீங்கள் செய்யக்கூடியது யாதா? தயவு செய்து விளக்குக.
25. மேலு-யாதேனும்-கற-விரும்புகிறீர்களா? உங்களது பங்குபற்றலுக்கு-நன்மிகள்

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Dr. S. Kumaresan

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## TEACHERS INTERVIEW SCRIPT

ஊக்கலும் ஈடுபாடும் - ஆசிரியர் நேர்காணல் பிரதி

இந்நேர்காணலைப் பூர்த்தி செய்வதற்காக தங்களது நேரத்தை செலவிடுகின்றமைக்கு எனது நன்றிகள். கனிஸ்ட் இடைநிலை வகுப்புக்களில் கற்கும் மாணவர்களின் ஊக்கம் மற்றும் ஈடுபாட்டிற்கு பங்களிப்புச் செய்யும் பாடசாலை சார்ந்த காரணிகள் பற்றி நான் ஆராய்ச்சி செய்வதை தாங்கள் அறிந்திருப்பீர்கள். அண்மையில் இருமுறை எட்டாந்த மாணவர்களை நான் ஆய்வு செய்ததுடன் குறைந்த ஊக்கலுடைய இருபது மாணவர்களுடன் பின்தொடர் நேர்காணலையும் நடத்தியுள்ளேன். மாணவருடனான நேர்காணல்கள் அவர்களது பாடசாலை, கற்றலனுபவங்கள், கற்றலில் தாக்கம் செலுத்தும் பாடசாலை சார்ந்த காரணிகள் மற்றும் கற்றல் மீதான அவர்களது ஊக்கலையும் பாடசாலை நடைமுறையையும் அதிகரிக்கச் செய்யும் ஆசிரியர் நடைமுறைகள் போன்றன பற்றிய அவர்களது புலக்காட்சி தொடர்பாகக் கவனம் செலுத்தின. இவ்வாய்வில் பங்கேற்றவர்கள் மூலம் தீவிரமானதொரு பிரச்சனையினை பகுத்தாய்வதற்கு தாங்கள் உதவியளிக்கின்றீர்கள். எனது கலாதிட்ட ஆய்வின் மூலம் பெறப்படும் தகவல்களைப் பயன்படுத்தி மாணவர் கற்றுலுக்கு சிறந்த முறையில் ஆதரவளிக்கக்கூடிய கல்விசார் சூழலை உருவாக்கிக் கொள்ள பாடசாலை அதற்கு உதவியளிப்பதற்குத் திட்டமிட்டுள்ளேன்.

நேர்காணலை ஆரம்பிக்குமுன், இந்நேர்காணலில் உங்களது பங்கேற்றல் தன்னார்வீதியானது என்பதையும் உங்களது துலங்கல்கள் இரகசியமாகப் பேணப்படும் என்பதையும் உங்களுக்கு அறியத்தர விரும்புகின்றேன். யாதேனும் காரணத்திற்காக தாங்கள் பங்கேற்றலை இடைநிறுத்த விரும்பினால் எதுவித தயக்கமின்றி அவ்வாறு செய்யலாம்.

1. பாடசாலை
2. வகுப்பறையிலுள்ள மாணவரின் சராசரி எண்ணிக்கை
3. கற்பித்தலில் ஈடுபட்ட வகுப்புகள்
4. எட்டாந்தரத்திற்கு கற்பித்த வகுப்புகள்
5. மிக உன்னதமான ஆசிரியரின் பண்புகளாக நீங்கள் கருதுபவை யாவை?
6. மாணவர்களுக்கு உங்களது பாடம் அல்லது வகுப்பு கருத்துள்ளதாக அமைவதை உறுதிசெய்வதற்கு நீங்கள் எடுக்கும் நடவடிக்கைகள் யாவை?
7. உங்கள் வகுப்பு மாணவர்களின் கவனத்தை எவ்வாறு பேணுகிறீர்கள்?
8. உங்கள் வகுப்பு மாணவரிடம் காணப்பட்ட எந்தத்தகைகள் அவர்களது ஈடுபாட்டில் எதிர்மறைத் தாக்கத்தை ஏற்படுத்தின?
9. வருடமொன்றில் உங்களது வகுப்பில் அண்ணளவாக எத்தனை வீதமான மாணவர்கள் குறைந்த அளவைக் கொண்டுள்ளனர்?
10. மாணவர்கள் தமது கற்றலில் ஊக்கம் குறைந்தவர்களாவதில் பங்களிப்புச் செய்யும் காரணிகள் என நீங்கள் கருதுபவை எவை?
11. மாணவர்கள் தமது கற்றலில் ஊக்கம் குறைந்தவர்களாவதில் பாடசாலை சார்ந்த காரணிகள் பங்களிக்கும் என நீங்கள் கருதுகிறீர்களா? அவை யாவை? ஆசிரியர் நடத்தை, சகாப்திகள், கலைத்திட்டம், பாடசாலை நிர்வாகம், பாடசாலை வசதிகள் போன்றவை
12. உங்களது வகுப்பிலுள்ள மாணவர்களை ஊக்குவிப்பதற்காக நீங்கள் பயன்படுத்தும் பிரதான நுட்பங்கள் யாவை? இது தொடர்பாக விளைதிறன் மிக்கவையாகக் காணப்பட்ட நுட்பங்கள் எவை? அவற்றை விளைதிறன் மிக்கதாக்கியது எது/ ஏன்?
13. பின்வருவன தொடர்பில் ஊக்கல் குறைந்த மாணவர்களுடன் எந்தளவிற்கு நீங்கள் உடன்பாடற்றிருக்கின்றீர்கள்?

பூர்த்திசெய்யப்படாத வேலைகள்	
கொடுமைப்படுத்தல்	

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Nawala, Nugegoda

சமூகமளிக்காமை	
பொய்குறல்	
தாமதம்	
செவ்வழிகளைத் தவறுதல்	
ஒட்டு மனப்பாங்கு	
பெரியவர்கள் அல்லது அதிகாரிகளை அவமதித்தல்	

14. இந்தச் சூழ்நிலைகள் ஊக்கல் குறைந்த உங்களது மாணவர்களுக்கு ஊக்கலையும் கற்றல் ஈடுபாட்டையும் குறைத்தனவா என்பதைத் தயவு செய்து இனங்காண்க.

பரீட்சையில் சித்தியடையத் தவறுதல்	
ஏனையோரின் தீர்ப்பு அல்லது மதிப்பீடு	
நடைமுறைச் சாத்தியமற்ற வகுப்பறைக் கேள்விகள்	
ஏதிர்காலம்	
சக்பாடகளுடனான பிரச்சினைகள்	
சுயமதிப்பிற்கு அச்சுறுத்தலாக அமையும் சூழ்நிலைகள்	
ஆசிரியருடனான உடன்பாடினமைகள்	
சக்பாடகன் முன்னிலையில் அவமானப்படுத்தப்படல்	
பாடநெறி ஒன்றில் தனியொரு வகையான கணிப்பீடு மட்டும் நடத்தப்படல்	
வகுப்பறைக் கலந்துரையாடல்களை வினாக்கேட்களை இடமளிக்கப்படாமை	

15. உங்கள் மாணவர்கள் கற்றலில் ஊக்கலையும் ஈடுபாட்டையும் அதிகரிக்க நீங்கள் எவ்வாறு உதவுகிறீர்கள்?
16. நீங்கள் எப்போதேனும் முன்கூட்டியதை மனவெழுச்சியார், சமூகமளர் மற்றும் நடத்தைசார் தேவைகள் மற்றும் உதவிகள் தொடர்பாக செயலாற்றி ஒன்றில் பங்குபற்றியோ அல்லது பயிற்றப்பட்டோ உள்ளீர்களா?
17. கனிவட இடைநிலை மாணவர்களைக் கற்றலில் ஊக்கப்படுத்தல்தரில் உங்களுக்கு உதவுவதற்காக உங்கள் பாடசாலை மாறுபாட்டவகையில் அல்லது மேலதிகமாக செய்யக்கூடியது யாது?
18. கற்றலில் ஈடுபாடு கொள்ளும் பொருட்டு மாறுபட்டவகையில் மாணவர்கள் செய்யக்கூடியது யாது?
19. கனிவட இடைநிலை மாணவர்களைக் கற்றலில் ஊக்கப்படுத்தும் ஈடுபாடுசெய்யவும் மாறுபட்டவகையில் நீங்கள் செய்யக்கூடியது யாது?
20. வேறு யாதேனும் மேலதிகமாக சேர்த்துக் கொள்ள விரும்புகிறீர்களா?

தங்களது ஒத்துழைப்பிற்கு நன்றிகள்

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## PRINCIPALS INTERVIEW SCRIPT

ஊக்கலும் ஈடுபாடும்- அதிபர்களுக்கான நேர்காணல் பிரதி

இந்நேர்காணலைப் பூர்த்தி செய்வதற்காக தங்கள் நேரத்தைச் செலவிடுகின்றமைக்கு எனது நன்றி. கனிஸ்ட் இடைநிலை வகுப்புகளில் கற்றும் மாணவர்களின் ஊக்கலுக்கும் ஈடுபாட்டிற்கும் பங்களிப்புச் செய்யும் பாடசாலை சார்புத் காரணிகள் பற்றி நான் ஆய்வு செய்வதைத் தாங்கள் அறிந்திருப்பீர்கள். அண்மையில் இருதரது தரம் வட்டு மாணவர்களை நான் ஆய்வு செய்ததுடன் குறைந்த ஊக்கலுடைய இருபது மாணவர்களுடன் பின்பொரு நேர்காணலையும் நடத்தியுள்ளேன். மாணவருடனான நேர்காணல்கள் அவர்களின் பாடசாலை, கற்றலனுபவங்கள், கற்றலில் நாக்கம் செலுத்தும் பாடசாலை சார்புத் காரணிகள் மற்றும் கற்றல் மீதான அவர்களின் ஊக்கலையும் ஈடுபாட்டையும் அதிகரிக்கச் செய்யும் பாடசாலை நடவடிக்கைகள் போன்றன பற்றிய அவர்களின் புலக்காட்சி தொடர்பாகக் கவனம் செலுத்தின. இந்நேர்காணலில் பங்குபற்றுவதில் மூலம் தீவிரமானதொரு பிரச்சினையினை பகுந்தராய்வதற்கு தாங்கள் உதவியளிக்கின்றீர்கள். எனது கலாநிதிப்பட்ட ஆய்வின் மூலம் பெறப்படும் தகவல்களைப் பயன்படுத்தி மாணவர் கற்றலுக்கு சிறந்த முறையில் ஆதரவளிக்கக்கூடிய கல்விசார் சூழலை உருவாக்கிக் கொள்ள பாடசாலை அதிபர்களுக்கு உதவியளிப்பதற்குத் திட்டமிட்டுள்ளேன்.

நேர்காணலை ஆரம்பிக்குமுன், இந்நேர்காணலில் உங்கள் பங்குபற்றல் தள்ளாற்றியானது என்பதையும் உங்கள் துலங்கல்கள் இரகசியமாகப் பேசப்படும் என்பதையும் உங்களுக்கு அறியத்தர விரும்புகின்றேன். யாதேனும் காரணத்திற்காக தாங்கள் பங்குபற்றலை இடைநிறுத்த விரும்பினால் எதுவித நயக்கமின்றி அவ்வாறு செய்யலாம். உங்கள் பங்களிப்பு மிக்க நன்றி உரித்தாகுக.

1. பாடசாலை:
2. கற்றலில் ஊக்கல் குறைந்தவர்கள் அல்லது ஊக்கலற்றுவர்கள் என தாங்கள் கருதும் மாணவர்கள் பற்றிச் சிந்திக்கவும். இம்மாணவர்களின் பண்புகள் யாவை?
3. கற்றலில் மாணவர்களின் ஊக்கல் குறைவடைவதில் பங்களிப்புச் செய்பவை என நீங்கள் கருதும் காரணிகள் யாவை?
4. கற்றலின்பால் ஊக்கல் குறைவடைவதற்கு பாடசாலை சார்புத் காரணிகள் காரணமாக அமையலாம் என நீங்கள் கருதுகிறீர்களா? அவை யாவை? பரீட்சைகள், வேலைப்படி, ஆசிரியர் நடத்தைகள், பாடசாலை வசதிகள், சகபாடிகள், தண்டனைகள், கலைத்திட்டம், பாடசாலை நிர்வாகம் போன்றவற்றை நீங்கள் கருத்திற் கொள்ள முடியும்.
5. ஆசிரியர்கள் வெவ்வேறும் கட்டமைப்புகளின் மனவெழுச்சிசார், சமூகம்சார் மற்றும் நடத்தைசார் தேவைகள் மற்றும் உதவிகள் தொடர்பான செயலமர்வு ஒன்றில் பங்குபற்றியுள்ளீர்களா என்பதைத் தயவுசெய்து உங்களால் சிறுமுடியுமா?
6. கனிஸ்ட் இடைநிலை மாணவர்களைக் கற்றலில் ஊக்கப்படுத்தவும் ஈடுபடச்செய்யவும் ஆசிரியர்களுக்கு உதவுவதற்காக உங்கள் பாடசாலை வேறுபட்ட வகையில் செய்யக்கூடியது யாது?
7. உங்கள் கனிஸ்ட் இடைநிலை மாணவர்களைக் கற்றலில் ஊக்கப்படுத்துவதற்கும் ஈடுபாடு கொள்ளச் செய்வதற்கும் நீங்கள் செய்யக்கூடியது யாது? 6. மாணவரின் ஊக்கலை அதிகரிப்பதில் ஆசிரியரின் செல்வாக்கு எத்தகையது? இது எங்கே வெற்றியளிக்கும் என்பதற்கு உதாரணம் தர முடியுமா?
10. கற்றலின்பால் கனிஸ்ட் இடைநிலை மாணவரின் ஊக்கலையும் ஈடுபாட்டையும் அதிகரிப்பதில் உங்கள் தலைமைத்துவ வகிப்பங்களை/ பாங்கினை விளக்கவும்

நேரடியான புவாங்க நடவடிக்கைகள்  
-ஆசிரியர்களுக்கு  
11. உங்கள் மாணவர்கள் கற்றலில் ஊக்கலையும் ஈடுபாட்டையும் அதிகரிக்க என்ன செய்யக்கூடியது?  
-அது உதவுகிறீர்களா?  
தங்கள்து ஒத்திழப்பிற்கு நன்றி

I certify that this record is an exact duplicate of the English version attached.

Head Dept of Secondary & Tertiary Education  
Faculty of Education  
The Open University of Sri Lanka  
Nawala, Nugegoda

## APPENDIX Q: Modifications to the Motivation and Engagement Scale-Junior School

Scale item 8

Each **week** I'm trying less and less at school (original).

Each **term** I'm trying less and less at school (changed).

Scale item 10

When I have a **project** to do, I worry about it a lot (original).

When I have an **assignment** to do, I worry about it a lot (changed).

Scale item 11

The main reason I try at school is because I don't want people to think that I'm **dumb** (original).

The main reason I try at school is because I don't want people to think that I'm **stupid** (changed).

Scale item 19

I worry about getting bad marks in tests and **projects** (original).

I worry about getting bad marks in tests and **assignments** (changed).

Scale item 27

Before I start a **project**, I plan out how I am going to do it (original).

Before I start an **assignment**, I plan out how I am going to do it (changed).

Scale item 30

I have a plan for how to do my homework or **projects** when I start them (original).

I have a plan for how to do my homework or **assignments** when I start them (changed).

## APPENDIX R: Human research ethics approval



Ethics Office  
Research Development & Integrity  
Research Division  
Armidale NSW 2351  
Australia  
Phone 02 6773 3449  
Fax 02 6773 3543  
jo-ann.sozou@une.edu.au  
www.une.edu.au/research-services

### HUMAN RESEARCH ETHICS COMMITTEE

**MEMORANDUM TO:** Dr Tanya Hathaway, Dr Chris Boyle, Prof Neil Taylor & Mrs Ruwandika Lakmali Jayalath Perera

#### Administration

This is to advise you that the Human Research Ethics Committee has approved the following:

**PROJECT TITLE:** The impact of junior secondary students' motivation and engagement on school attrition in low socio-economic districts in Sri Lanka

**APPROVAL No.:** HE15-233

**COMMENCEMENT DATE:** 20 October, 2015

**APPROVAL VALID TO:** 20 October, 2016

**COMMENTS:** Nil. Conditions met in full

The Human Research Ethics Committee may grant approval for up to a maximum of three years. For approval periods greater than 12 months, researchers are required to submit an application for renewal at each twelve-month period. All researchers are required to submit a Final Report at the completion of their project. The Progress/Final Report Form is available at the following web address: <http://www.une.edu.au/research/research-services/rdi/ethics/hre/hrec-forms>

The NHMRC National Statement on Ethical Conduct in Research Involving Humans requires that researchers must report immediately to the Human Research Ethics Committee anything that might affect ethical acceptance of the protocol. This includes adverse reactions of participants, proposed changes in the protocol, and any other unforeseen events that might affect the continued ethical acceptability of the project.

In issuing this approval number, it is required that all data and consent forms are stored in a secure location for a minimum period of five years. These documents may be required for compliance audit processes during that time. If the location at which data and documentation are retained is changed within that five year period, the Research Ethics Officer should be advised of the new location.



Jo-Ann Sozou  
Secretary/Research Ethics Officer

20/10/2015

A15/22

## APPENDIX S: Departments of Education approval letters for data collection

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මාකාණ කல்විථ  
පணிப்பாளා  
Provincial Director of  
Education } 2694951

දුරකථන සංදේශ  
පොත් தொலைபேசி  
General Telephone } 2693893

ෆැක්ස්  
தொலை நகல் } 2693894  
Fax } 2678394

E මේල්  
இ - அஞ்சல் } WPED1943@slnet.lk  
E - m }



බස්නාහිර පළාත් අධ්‍යාපන  
දෙපාර්තමේන්තුව  
மிகாகாண கல்வித் திணைக்களம்  
மேல் மிகாணம்  
Western Provincial Department  
of Education

මගේ අංකය  
எனது இல  
My Number } WP/EA02/130

ඔබේ අංකය  
உமது இல  
Your Number }

76, ආනන්ද කුමාරස්වාමි මාවත,  
කොළඹ 07  
76 ஆனந்த குமாரசாமி மாவத்தை  
கொழும்பு - 07  
76, Ananda Kumaraswami  
Mawatha  
Colombo 07

දිනය  
திகதி } 2015.09. 22  
Date }

Mrs K.D.R.L.J. Perera  
Senior Lecturer,  
Dept.of Secondary & Tertiary Education,  
Faculty of Education,  
The Open University of Sri Lanka,  
Nawala, Nugegoda.

Dear Madam;

### Giving Permission to Visit Schools and Conduct the Pilot Study

This letter is issued according to your request made on 22/09/2015

02. I wish to inform you that, I grant permission to you (Mrs K.D.R.L.J. Perera, PhD student (220116286) at University Of New England) to visit the following two schools and conduct the pilot study for your PhD study.

Wp/Pili/Batuwandara Kanishta Vidyalaya  
Wp/Ho/Wewita Maithree Maha Vidyalaya

Those two schools are located under my administration.

**WIMAL GUNARATHNE**  
Provincial Director of Education  
Western Province

**Wimal Gunerathne**  
Director of Education (Acting)  
Department of Education (Western Province)  
76, Ananda Coomaraswamy Mawatha,  
Colombo 07.

*Additional Directors in*  
Educational Development 2678398  
Educational Administration 2682262  
General Administration 2682263

*Accountants*  
Chief Accountant 2691574  
Accountant Audit 2678397  
Accountant Finance 2678394

*Officers*  
DDE - ( Planning ) 2678395  
DDE - (Administration) 2678396  
Administrative



ඌව පළාත් අධ්‍යාපන දෙපාර්තමේන්තුව  
 உவா மாகாண கல்வித் திணைக்களம்  
 Uva Provincial Department of Education  
 වෙලෙගියාරා පාර මල්වතු / වෙලෙගියාරා මාවත, පුදුගම. Welageciara Road, Badulla



මගේ අංකය  
 My No } UP/ED/01

ඔබේ අංකය  
 Your No }

මුද්‍රණ  
 Date } 2015.09.30

K.D.R.L.J.Perera  
 Senior Lecturer  
 Dept. of Secondary and Tertiary Education,  
 Faculty of Education,  
 The Open University of Sri Lanka,  
 Nawala,  
 Nugegoda.

Dear Madam,

Granting permission to visit schools to conduct the PhD study

I wish to inform you that, I grant permission you to visit and conduct the study (collect data) in following five schools which are located in the Uva Province, Sri Lanka.

This letter is issued on the request made by you.

- |                    |            |
|--------------------|------------|
| Magandanamula K.V. | Moneragala |
| Kalawalaragama K.V | Moneragala |
| Piyananda K.V.     | Wellawaya  |
| Gampanguwa K.V.    | Wellawaya  |
| Ihaawa K.V.        | Bibila     |



අධ්‍යාපන දෙපාර්තමේන්තුව  
 ඌව පළාත් අධ්‍යාපන දෙපාර්තමේන්තුව  
 Copies: 01. Zonal Directors  
 02. Principals

මහා අධ්‍යක්ෂ ජනරාල් මහා අධ්‍යක්ෂ ජනරාල් Provincial Director of Education අධ්‍යාපන දෙපාර්තමේන්තුව මහා අධ්‍යක්ෂ ජනරාල් A/c. Provincial Director of Education අධ්‍යාපන දෙපාර්තමේන්තුව මහා අධ්‍යක්ෂ ජනරාල් Administration Officer මහා අධ්‍යක්ෂ ජනරාල් Chief Accountant	විද්‍යුත් තැපෑල : 055-2223138 Email : mpr@uved.gov.lk විද්‍යුත් තැපෑල : 055-2224802 විද්‍යුත් තැපෑල : 055-2223886 විද්‍යුත් තැපෑල : 055-2223184 Email : upedacc@uved.gov.lk	ප්‍රධාන අධ්‍යක්ෂ ජනරාල් මහා අධ්‍යක්ෂ ජනරාල් School Headmaster Section මහා අධ්‍යක්ෂ ජනරාල් මහා අධ්‍යක්ෂ ජනරාල් Teacher Administration මහා අධ්‍යක්ෂ ජනරාල් G.L.N. & S/N, Planning Section මහා අධ්‍යක්ෂ ජනරාල් මහා අධ්‍යක්ෂ ජනරාල් Exam Section	විද්‍යුත් තැපෑල : 055-2228525 විද්‍යුත් තැපෑල : 055-2228138 විද්‍යුත් තැපෑල : 055-2228507 Email : mpr@uved.gov.lk විද්‍යුත් තැපෑල : 055-2225119	මහා අධ්‍යක්ෂ ජනරාල් මහා අධ්‍යක්ෂ ජනරාල් General මහා අධ්‍යක්ෂ ජනරාල් මහා අධ්‍යක්ෂ ජනරාල් Director General මහා අධ්‍යක්ෂ ජනරාල් මහා අධ්‍යක්ෂ ජනරාල් Director General මහා අධ්‍යක්ෂ ජනරාල් මහා අධ්‍යක්ෂ ජනරාල් Director General	විද්‍යුත් තැපෑල : 055-2227713 055-2228617 විද්‍යුත් තැපෑල : 055-2224803 විද්‍යුත් තැපෑල : 055-2224412 විද්‍යුත් තැපෑල : 055-2222265
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எனது இல  
My No.

මප/අධ්‍යා/ස/06/නො.නා

ඔබේ අංකය  
உமது இல  
Your No.

තෝරාගෙන  
காற்றியுள்ள  
Office

081 - 2224041  
081 - 2224042



මධ්‍යම පළාත් සභාවේ අධ්‍යාපන දෙපාර්තමේන්තුව.  
மத்திய மாகாண சபையின் கல்வித் திணைக்களம்.  
Education Department of Central Province

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Add. P. D. E.

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திகதி  
Date.

2015.09.2

K.D.R.L.J.Perera  
Senior Lecturer  
Dept. of Secondary and Tertiary Education,  
Faculty of Education,  
The Open University of Sri Lanka,  
Nawala  
Nugegoda

Dear Madam,

**Granting permission to visit schools to conduct the study**

I wish to inform you that, I grant permission you to visit and conduct the study in following five schools which are located in the Central Province, Sri Lanka.

This letter is issued on the request made by you.

Mahauva T.V.	Walapane ✓
Dayagama T.V	Nuwara Eliya
Kalapuwanam T.V.	Kotmale ✓
Kirkoswald No 2 T. V.	Hatton ✓
Vivekananda T.V.	Hanguranketha

Deputy Director of Education

(Planning, HRD)

**T. G. JAYASEKARA**  
Deputy Director of Education  
Department of Education  
Central Province  
Kandy

Copies

1. Zonal Directors
2. Principals



ඉඩම් පළාතේ අධ්‍යාපන දෙපාර්තමේන්තුව  
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**Uva Provincial Department of Education**  
 මහලොදරා පාර, බදුගොඩ / Walegedara Road, Badulla



අංකය / No. } UP/ED/16  
**Att. Mr. Haritha**

වසර / Year No }

දිනය / Date } 2016.01.05

Mrs. K.D.R.L.J. Perera,  
 Senior Lecturer,  
 Department of Secondary and Tertiary Education,  
 Faculty of Education,  
 The Open University of Sri Lanka,  
 Nawala,  
 Nugegoda.

Dear Madam,

Granting permission to visit schools to conduct the PhD study

I wish to inform you that, I grant permission you to visit and conduct the study (Collect Data) in following two schools which are located in the Uva Province, Sri Lanka.

- Mo/Mari-Awara Secondary School, Bible
- Mo/Kurugama Vidyalaya, Wellawaya.

This letter issued on the request made by you.

**R.M. Thilakarathne,**  
 Additional Director of Education,  
 (Management)

**Sdg. R.M.P. Rathnayake,**  
 Provincial Director of Education.

- Copies : 01. Zonal Directors, Wellawaya / Bible  
 02. Principal, Mo/Mari-Awara Secondary School, Bible  
 03. Principal, Mo/Kurugama Vidyalaya, Wellawaya.

අධ්‍යාපන දෙපාර්තමේන්තුව Provincial Director of Education	විද්‍යා මාර්ග Director of Education	පාලන කොටු Administration Section	පාලන කොටු Administration Section	පාලන කොටු Administration Section	පාලන කොටු Administration Section
Tel/Fax: 055-2229178 Email: <a href="mailto:info@up.gov.lk">info@up.gov.lk</a>	Tel: 055-2229100	Tel: 055-2229100	Tel: 055-2229100	Tel: 055-2229100	Tel: 055-2229100

## APPENDIX T: Information sheets for children in all three media

### Information sheet for children-English medium



School of Education  
University of New England  
Armidale NSW 2351  
Australia  
Phone 02 6773 3716  
Fax 02 6773 2445  
Email [education@une.edu.au](mailto:education@une.edu.au)



### **The impact of junior secondary students' motivation and engagement on school attrition in low socio-economic districts in Sri Lanka**

Dear Students,

I wish to invite you to participate in my study on above topic. Dr. Tanya Hathaway, Dr. Christopher Boyle and Prof. Neil Taylor are my supervisors and have been teachers in schools and now teach at the University of New England. I'm (Mrs Ruwandika Perera) a PhD student at School of Education. I'm currently doing a study that is trying to find out more about how young children are interested in learning. This Information Sheet has the answers to many of the questions that you and your parent(s) may have about the study. There is a lot of information in here so don't worry if it is too much for one read. Just read through a bit at a time if you want.



#### **1) What is the study for and why is it being done**

I'm collecting information to use in my university study to look at why children of your age don't want to stay in school and want to leave school early. I want to find out what it is about school that really affects how children of your age learn. I'm interested in how your teachers and principals can make school more interesting for children and help children stay at school.

#### **2) What would I be asked to do if I took part in the study?**

I want to you to fill a survey. This survey has been given to you to find out about your interest in learning, how you study, and what you think of yourself as a student. It will about take 30 minutes to complete. Before you start filling the survey all the instructions

will be given. You will not need to write anything; just you will have to put ticks. If you have any worries, before, during, or after the survey, please talk to me. You do not have to complete it, if you do not want to. You will not be in trouble if you choose not to complete the survey.

Further, I would like to talk to you about your school life and audio record your responses. I won't be asking everyone. I would like to talk to students who show in the survey that they are less interested in school. The interviews will take about 30 minutes. The student researcher will do all interviews with Sinhala medium students personally. For the Tamil medium students, the student researcher will get the support of a translator. Following the interview, a record will be provided to you or your parent if you wish to see one.

**3) Will my parents have to do anything?**

Apart from making sure you are happy to join in this study, your parents will be asked to complete a consent form showing that they are happy for you to join in.



**4) When and where would the survey sessions and interview take place?**

Each survey session will be held at your own classroom at your school and the interviews will be held after the school time.

**5) What information will the researcher want me to tell them?**

I would like to know what it is about school that makes you really like doing the work or not, and what you find that really interests you and what bores you. Further, I want you to tell me what you think that your teachers and the school should do about increasing your interest in learning.

**6) What will be done with this information that I give?**

First, I will take the surveys to my office. Then, the interviews will be held. Recordings will be carefully checked and I will try to pick out all of the most interesting and important things that the young children have been telling me. The researcher will write a report at the end of the study so that we can share the information from this study with other researchers and teachers who are interested and concerned in junior secondary students' interest in learning.

I will also try to write articles about the study and issue these and also talk about the study at meetings and conferences so that what we have found out actually gets to people who might be able to use the information to help other children, teachers and schools. If we

didn't do this, then the children who helped us might feel that they had done this for nothing.

Remember again though, that in any of the articles or reports, your name will not appear as what you tell us is secret and private. What I would do is perhaps say that "A student who had problems with friends said that..." or write that "Isuri (not her real name), said that she is not interested in learning due to harsh punishments given by the teacher."

**7) Who will be told about any information that I give?**

The survey session and the interviews are strictly secret. What you tell us will stay within the research team, apart from when I report the study as I explained above in point (6).



None of what you tell me will become part of any school records or notes.

All information remains secret.

**8) Do I have to take part in this study?**

Not at all. You should only take part if you want to and are happy to be a part.

**9) What will happen if I don't want to take part?**

Nothing at all. You can say that you would rather not take part.

**10) Can I change my mind if I decide to participate?**

Yes. You can choose to go away the study at any time and nothing at all will be said, apart from 'Thank you very much for thinking about taking part'. You can also choose to discuss or not discuss any part of your experience - whatever you feel most comfy with.

**11) Will the study advantage me in any way?**

I can't promise that you will get any advantage from taking part. However, you might feel that by increasing your interest in learning, in future you will get more advantages.

**12) Have you got permission to do this study?**

Yes. I have permission from the Ethics Committee at the Human Research Ethics Committee of the University of New England. They have looked carefully at this study and have 'passed' it. Other researchers and teachers, including Dr. Tanya Hathaway, Dr. Christopher Boyle and Prof. Neil Taylor have also looked carefully at the study and thought that it was a good study to do.



**13) What if I have other questions about the study?**

Please contact the principal supervisor, Dr Tanya Hathaway at any time.

Her office phone number is +61267733896. You can also call Dr.

Christopher Boyle on +61267732953, Prof. Neil Taylor on

+61267735064 or me by phoning +61267730659.

And also, if you have any complaints about the manner in which this research is conducted, please contact;

Local Research Officer Sinhala medium at:

Mrs. D.V.M. De Silva  
Lecturer  
Faculty of Education  
The Open University of Sri Lanka  
Nawala, Nugegoda, Sri Lanka  
Tel: +94112881389  
Email: [dvsil@ou.ac.lk](mailto:dvsil@ou.ac.lk)

Local Research Officer Tamil medium at:

Mr. S.S. Zarookdeen  
Senior Lecturer  
Faculty of Education  
The Open University of Sri Lanka  
Nawala, Nugegoda, Sri Lanka  
Tel: +94112881389  
Email: [sszar@ou.ac.lk](mailto:sszar@ou.ac.lk)



Research Ethics Officer at:  
Research Services  
University of New England  
Armidale, NSW 2351.  
Telephone: +61267733449 Facsimile +61267733543  
Email: [ethics@une.edu.au](mailto:ethics@une.edu.au)

**14) What if I feel that I would like to talk to someone after the interview about any thoughts, feelings or problems that I have?**

You may contact any member of the research team, or you may prefer to speak with your classroom teacher or parents.

**15) The formal 'stuff':**

This project has been approved by the Ethics Committee at the University of New England (Approval No. HE15-233 valid from 20 October 2015 to 20 October 2016).

Please keep this information sheet as you might want to discuss it with friends, family or relatives.

Thanks a lot for taking the time to read this and for any help that you are able to give me with this study.

Mrs. Ruwandika Perera

# Information sheet for children-Sinhala-medium



School of Education  
 University of New England  
 Armidale NSW 2351  
 Australia  
 Phone 02 6773 3716  
 Fax 02 6773 2445  
 Email education@une.edu.au

**INFORMATION SHEET**  
**for**  
**STUDENTS**

### ශිෂ්‍යයන් සඳහා වන උපදෙස් පත්‍රිකාව

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ප්‍රිය ශිෂ්‍ය/ ශිෂ්‍යයා ව  
 ඉහත මාතෘකාව යටතේවන මාගේ අධ්‍යයනයට සහභාගිවීම සඳහා මම ඔබට ආරාධනා කර සිටිමි. ආචාර්ය වාණි අනුමෝදා, ආචාර්ය ක්‍රිස්ටෝෆර් බොයිලෝ සහ මහාචාර්ය නිල් ටේලර් යන මහත්ම මහත්මීන් මාගේ අධීක්ෂකවරුන් වන අතර ඔවුහු පාසල්වල ඉගැන්වීමෙහි නිරතව සිටින වර්තමානයේ New England විශ්වවිද්‍යාලයේ ඉගැන්වීමේ කටයුතුවල නිරතව සිටිති. මම එහි අධ්‍යාපන පාසලේ ආචාර්ය උපාධි ශිෂ්‍යාවකි. මම දැනට යොවුන් දරුවන් ඉගෙනුමට ප්‍රිය කරන්නේ කෙසේද යන්න පිළිබඳව වඩාත් කරුණු සෙවීමට උත්සාහ කරනු ලබන අධ්‍යයනයක් සිදු කරමින් සිටිමි.

මෙම තොරතුරු පත්‍රිකාවේ ඔබට සහ ඔබගේ දෙමව්පියන්ට මෙම අධ්‍යයනය පිළිබඳව පැහැදිලි තැකි හැකි බොහෝ ගැටලුවලට පිළිතුරු සතුව පවතී. මෙහි තොරතුරු රැසක් වේ. එක් වරකදී කියවීමට ඇති ප්‍රමාණය වැඩි යැයි සිතා දුක් වීම අවශ්‍ය නැත. ඔබට හැකි වේලාවක කුඩා කොටස් වශයෙන් කියවන්න.

1) අධ්‍යයනය කුමක් සඳහාද එය සිදු කරන්නේ ඇයි? මාගේ විශ්වවිද්‍යාල අධ්‍යයනය සඳහා ඔබගේ වයසේ සිටින දරුවන් පාසලේ රැඳී සිටීමට අකමැති ඇයි සහ කලින් බැහැරවීමට හේතු මොනවාද? යන්න සොයා බැලීමට තොරතුරු රැස් කරමි. මම ඔබගේ වයසේ දරුවන්ගේ ඉගෙනීමට බලපාන පාසල සම්බන්ධ හේතු මොනවාද යන්න සෙවීමට කැමැත්තෙන් පසුවෙමි.

මම ඔබගේ ගුරුවරුන්ට සහ විදුහල්පතිවරුන්ට පාසල ඔබට වඩා සතුටුදායක ස්ථානයක් බවට පත්කළ හැක්කේ කෙසේද සහ දරුවන්ට පාසලෙහි දිනටම රැඳී සිටීමට උදව්කළ හැක්කේ කෙසේද යන්න සෙවීමට වඩා කැමැත්තෙන් පසුවෙමි.

02. මෙම අධ්‍යයනයේ සාමාජිකයෙකු වුවහොත් මානව කිරීමට සිදුවන්නේ මොනවාද?

ඔබට සම්භ්‍යන්‍යයක් නමින් හඳුන්වන පුරුණතාවලියක් සම්පූර්ණ කිරීමට ඇත. මෙම පුරුණතාවලිය දෙනු ලබන්නේ ඉගෙනීමට ඔබගේ ඇති කැමැත්ත, ඔබ ඉගෙන ගන්නේ කෙසේද? සහ ශිෂ්‍යයෙකු ලෙස ඔබ, ඔබ ගත සිතන ආකාරය සොයා බැලීමටය. එය සම්පූර්ණ කිරීමට මිනිත්තු 30 ක පමණ කාලයක් ගතවේ. එය පිරවීමට පෙර, ඔබට සියලුම උපදෙස් ලබාදෙනු ලැබේ. ඔබට එහි කිසිවක් ලිවීමට අවශ්‍යව නැත. ඔබ කළ යුත්තේ සලකුණ යෙදීම පමණි. මෙය පිරවීමට පෙර අතරතුරදී හෝ පසුව ගැටලුවක් වේ නම් මට කතා කරන්න. ඔබ අකමැති නම්, එය පිරවීම අවශ්‍ය නොවේ. ඔබ එය නොකිරීමෙන් කිසිදු ගැටලුවක් ඇති නොවේ.

එසේම මම ඔබ සමග ඔබේ පාසල් දිවිය පිළිබඳ කතා කරන අතර, ඔබගේ ප්‍රතිචාර පටිගත කරනු ලැබේ. මම ඒ පිළිබඳව හැමෝගෙන්ම පුරුණ නොකරන අතර, ඔබ පිරවූ පුරුණතාවලියට අනුව, පාසල පිළිබඳව අඩු කැමැත්තක් දක්වන ශිෂ්‍යයන් සමග පමණක් කතා කරනු ලැබේ. මා විසින් සිංහල මාධ්‍ය ශිෂ්‍යයන් සමඟ පුද්ගලිකව සියලුම සම්මුඛ සාකච්ඡා පවත්වනු ලබන අතර, දෙමළ මාධ්‍ය ශිෂ්‍යයන් සඳහා පරිවර්තකයෙකුගේ සහය ලබාගනු ලැබේ. සම්මුඛ සාකච්ඡාවෙන් අනතුරුව ඔබ කැමතිනම් එහි වාර්තාවක් ඔබට හෝ ඔබගේ දෙමව්පියන්ට ලබාදෙනු ලැබේ.

3) මගේ දෙමව්පියන්ට කිරීමට යමක් තිබේද?

ඔබ මෙම අධ්‍යයනය සඳහා සහභාගිවීමට කැමතිබව දැන්වීමට අමතරව ඔබගේ දෙමව්පියන්ට ඔබට මෙම අධ්‍යයනය සඳහා සහභාගිවීමට කැමතිබව ප්‍රකාශකිරීමේ පත්‍රිකාවක් පිරවීමට තිබේ

4) පුරුණතාවලි පිරවීම සහ සම්මුඛ සාකච්ඡා පැවැත්වීම සිදුවන්නේ කොහෙද ද?

පුරුණතාවලි පිරවීම ඔබගේ පාසලේ ඔබගේ පන්ති කාමරයේ දී සිදු කරනු ලබන අතර සම්මුඛ සාකච්ඡා පාසලේ වේලාවෙන් පසුව පාසලේ සිදු කරනු ලැබේ.

05) පර්යේෂකයා විසින් මගෙන් බලාපොරොත්තුවන තොරතුරු මොනවා ද?

පාසලේ දී ඔබ වඩා කැමැත්තෙන් කරන හෝ නොකරන වැඩ මොනවා ද? ඒවායින් ඔබ ඇත්තටම කැමති සහ අකමැති (කම්මැලි) ඒවා මොනවා ද? යන්න දැනගැනීමට මම කැමැත්තෙන් සිටිමි. එසේම ඔබගේ ඉගෙනුමට ඇති කැමැත්ත වැඩි දියුණු කිරීමට ගුරුවරුන් සහ පාසල මගින් කළයුතු දේ මොනවාද යන්න ඔබට මා හට කීමට ඇති දේවල් වේ.

6) මම දෙනු ලබන තොරතුරුවලට සිදුවන්නේ කුමක් ද? පළමුව ඔබ විසින් පුරවනු ලබන ප්‍රශ්නාවලි මගේ කාර්යාලයට රැගෙන යනු ලැබේ. අනතුරුව සම්මුඛ සාකච්ඡා පවත්වනු ලැබේ. යොමු කිරීමේ ක්‍රියාවලියේ මා හට පවසනු ලබන රටවත් සහ වැදගත් දේ ලබාගැනීමට සියලුම පටිගත කිරීම් නොදීත් පරීක්ෂා කරනු ලැබේ. අධ්‍යයනය අවසානයේ දී, මව්සින් වාර්තාවක් ලියනු ලබන අතර එහිදී අපට මෙම අධ්‍යයනයේ තොරතුරු කණිෂ්ඨ ද්විතියික අවධියේ ගිණුමෙන් ඉගෙනීමට ඇති රූපික පිළිබඳව උනන්දුවක් දක්වන අතිඥත් පර්යේෂකයන් සහ ගුරුවරුන් සමග බෙදාහදා ගත හැකි වේ.

එසේම මම මෙම අධ්‍යයනය පිළිබඳව පර්යේෂණ ලිපි ලිවීමට සහ නිකුත් කිරීමට අදහස් කරමි. තවද ඒ පිළිබඳව රැස්වීම් සහ සම්මන්ත්‍රණවලදී සාකච්ඡා කරනු ලැබේ.

එවිට, අප සොයා ගත් දේ ගිණුමෙන්, ගුරුවරුන් සහ පාසල්වලට උදව් කළ හැකි අතිඥත් පුද්ගලයන්ටද ලබාගත හැකි ය. අප එසේ නොකළහොත් අපට උදව්කළ ගිණුමට ඔවුන් මේ සඳහා කිසිවක් නොකළ බව හැඟෙනු ඇත.

එම පර්යේෂණ ලිපි හෝ වාර්තාවල ඔබගේ නම සටහන් නොවන අතරඔබ මට කියන දේවල් රහසිගත සහ පුද්ගලිකවත් බව නැවත සිතියේ තබාගන්න. බොහෝවිට ඒවා “යහළුවන් අතර ප්‍රශ්න තිබුණු ගිණුමක් කියා පවිදි.....” හෝ ඉසුරි (සත්‍ය නම නොවේ)” තමන් ගුරුවරුන්ගේ දැනුවත් නිසා ඉගෙනීමට අකමැතිබව කිව්වා” ආදී ලෙස සටහන්වනු ඇත.

07) මම ලබාදෙන තොරතුරු කියන්නේ කාටද?

ප්‍රශ්නාවලි පිරවීම සහ සම්මුඛ සාකච්ඡා පැවැත්වීම මුළුමනින්ම රහසිගත වේ. ඔබ මට කියන දේ මා විසින් ඉහත අංක 6 දී පැහැදිලි කළ ආකාරයට අමතරව පර්යේෂක කණ්ඩායමට පමණක් සීමාවේ. ඔබ විසින් කියනු ලබන කිසිදු දෙයක් පාසල් වාර්තාවල හෝ සටහන්වල වාර්තා නොවේ. සියලුම තොරතුරු රහසිගත වේ.

08) මම මෙම අධ්‍යයනයේ කොටස්කරුවෙකු විය යුතුද?

කොහෙත්ම නැත. ඔබට අවශ්‍ය නම් සහ ඔබ කැමති නම් පමණක් ඔබ මෙම අධ්‍යයනයේ කොටස්කරුවෙකු විය හැකියි.

09) මම මෙහි කොටස්කරුවෙකු නොවුණහොත් කුමක් සිදුවේද?

කිසිවක් නැත. ඔබට මම මෙම අධ්‍යයනයේ කොටස්කරුවෙකු නොවන බව පැවසිය හැකිය.

10) මම මේ සඳහා සහභාගිවීමට තීරණය කළ පසු, මගේ අදහස වෙනස් කළ හැකිද?

ඔව්. ඔබට ඕනෑම අවස්ථාවක මෙම අධ්‍යයනයෙන් ඉවත්වීමේ හැකියාව ඇත. එහිදී “මෙම අධ්‍යයනයේ කොටස්කරුවෙකු වීමට සිතීම පිළිබඳව ස්තූතිය” යන්න හැර කිසිවක් නොපවසනු ඇත. එසේම ඔබගේ අත්දැකීම්වල කිනම් හෝ කොටසක් සාකච්ඡා කිරීමට හෝ නොකිරීමට ඔබගේ පහසුව අනුව ඔබට හැකියාව ඇත.

11) මෙම අධ්‍යයනයෙන් මට වාසි අත්වේද?

ඔබට මෙමගින් වාසි අත්වේයැයි මට සහතික විය නොහැකිය. නමුත් ඔබගේ ඉගෙනුමට ඇති කැමැත්ත වැඩිවීමෙන් අනාගතයේදී ඔබට වඩා වාසි අත්විය හැකි බව ඔබට වැටහෙනු ඇත.

12) මෙම අධ්‍යයනය සඳහා ඔබ විසින් අවසර ලබාගෙන තිබේ ද?

ඔව්. New England විශ්වවිද්‍යාලයේ මානව පර්යේෂණ ආචාර ධර්ම කමිටුවේ අවසරය මා සතුව ඇත. ඔවුන් මෙම අධ්‍යයනය දෙස ඉතා ඕනෑකමින් බලා අනුමත කර ඇත. ආචාර්ය ටාන්ගා හතළේ, ආචාර්ය ක්‍රිස්ටෝෆර් බොයිලේ සහ මහාචාර්ය හීල් ටේලර් ඇතුළු අනිකුත් පර්යේෂකයන් සහ ගුරුවරුන් ද මෙය ඉතා සුපරීක්ෂාකාරීව බලා එය කිරීමට සුදුසු බව පවසන ලදී.

13) අධ්‍යයනය පිළිබඳව මට වෙනත් ප්‍රශ්න තිබේ නම් කළයුත්තේ කුමක් ද?

කරුණාකර මගේ ප්‍රධාන අධීක්ෂකවරියට ඕනෑම වෙලාවක කතා කරන්න ඇයගේ කාර්යාල දුරකථන අංකය වන්නේ 061267733896. එසේම ඔබට ආචාර්ය ක්‍රිස්ටෝෆර් බොයිලේ මහතාට 061267732953 අංකයෙන් සහ මහාචාර්ය හීල් ටේලර් මහතාට 061267735064 යන අංකයෙන් හෝ මා හට 061267730659 යන්නෙන් ඇමරිකා හැකිය.

එසේම ඔබට මෙම අධ්‍යයනය ක්‍රියාත්මක කරන ආකාරය පිළිබඳව කිරීමට කුමන හෝ පමිණිල්ලක් තිබේනම් පහත පුද්ගලයන් වෙත යොමු කරන්න.

දේශීය පර්යේෂණ නිලධාරී- සිංහල මාධ්‍යය  
ඩී.වී. එම්.ද සිල්වා මහත්මිය, කථිකාචාර්ය, අධ්‍යාපන පීඨය,  
ශ්‍රී ලංකා විවෘත විශ්ව විද්‍යාලය, නාවල, නුගේගොඩ,  
ශ්‍රී ලංකාව.

දුරකථනය : ,94112881389

විද්‍යුත් ලිපිනය : dvsil@ou.ac.lk

දේශීය පර්යේෂණ නිලධාරී -දෙමළ මාධ්‍යය  
එස්. එස්. සරත්කීන් මහතා  
ජ්‍යෙෂ්ඨ කවිකාවාරිය  
අධ්‍යාපන පීඨය  
ශ්‍රී ලංකා විවෘත විශ්වවිද්‍යාලය  
නාවල, නුගේගොඩ, ශ්‍රී ලංකාව  
දුරකථනය : 094112881389  
විද්‍යුත් ලිපිනය : [sszar@ou.ac.lk](mailto:sszar@ou.ac.lk)

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පර්යේෂණ ආචාර ධර්ම නිලධාරී  
පර්යේෂණ සේවා  
New England විශ්වවිද්‍යාලය  
ආම්ඩේල්, NSW 2351, ඕස්ට්‍රේලියාව  
දුරකථනය : 061267733449  
ෆැක්ස් : 061267733543  
විද්‍යුත් ලිපිනය : [ethics@une.edu.au](mailto:ethics@une.edu.au)

14) සම්මුඛ සාකච්ඡාවෙන් පසුව මා තුළ ඇතිවන සිහිවැලි, හැඟීම් හෝ ප්‍රශ්න යම් අයෙකු සමඟ කතා කිරීමට අවශ්‍ය බව හැඟෙනහොත් මා විසින් කළ යුත්තේ කුමක් ද?

ඔබට පර්යේෂණ කණ්ඩායමේ ඕනෑම සාමාජිකයෙකු සම්බන්ධ කරගත හැකි ය. එසේ නැත්නම් ඔබගේ පන්තිකාමර ඉරුවරයා හෝ දෙමාපියන් සමඟ කතා කළ හැකි ය.

15) විධිමත්තාවය

මෙම ව්‍යාපෘතිය New England විශ්වවිද්‍යාලයේ ආචාර ධර්ම කමිටුව මගින් අනුමත කොට ඇත. (අනුමැති අංකය HE15 - 233 අනුමැති කාලය 2015 ඔක්තෝබර් 20 – 2016 ඔක්තෝබර් 20)

කරුණාකර මෙම තොරතුරු පත්‍රිකාව ඔබ ළග තබාගන්න. ඔබට මේ පිළිබඳව ඔබගේ යහළුවන්, පවුලේ අය හෝ නෑදෑයන් සමඟ සාකච්ඡා කිරීමට අවශ්‍ය වනු ඇත.

මෙය කියවීමට කාලය යෙදවීම ගැන මෙන්ම මෙම අධ්‍යයනය සඳහා ඔබ ලබාදෙන කුමන ආකාරයේ වුවද සහයෝගයක් සඳහා ස්තූතියිවන්න වෙමි.

රාවන්ද්‍රිකා පෙරේරා

## Information sheet for children-Tamil-medium



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### INFORMATION SHEET for STUDENTS

அன்பான மாணவரே,

உங்களை எனது ஆய்வில் பங்குகொள்ள அழைக்கின்றேன். கலாநிதி, தன்யா ஹதவேய, கலாநிதி, கிறிஸ்ரோபர் பொயில், பேராசிரியர், நெயில் ரெயிலர் ஆகியோர் எனது மேற்பார்வையாளர்களாகவும் ஆசிரியர்களாகவும் உள்ளனர். திருமதி. ருவிந்தி பெரேரா ஆகிய நான் கலாநிதிப்பட்ட மாணவி. நான் தற்பொழுது மாணவர்கள் கற்றலில் எவ்வாறு ஆர்வமாக உள்ளனர் என்பது தொடர்பாக ஆய்வில் ஈடுபட்டுள்ளேன்.

இந்த தகவல் படிவத்தில் காணப்படும் பல்வேறு வினாக்களுக்கு நீங்கள் விடையளிக்க வேண்டும். இங்கு பல்வேறு தகவல்கள் காணப்படுகின்றன. அவற்றிணையிட்டு உங்களுக்கு நேரமுள்ளபோது வாசித்தால் போதும்.

(1) இந்த ஆய்வு யாது? இது ஏன் மேற்கொள்ளப்படுகின்றது? நான் எனது பல்கலைக்கழக கற்கைக்காக தகவல்களை சேகரிக்கின்றேன். மாணவர்கள் தமது இளம்பராயத்தில் ஏன் பாடசாலைகளை விட்டு வெளியேறுகின்றனர் என்பது தொடர்பாக ஆய்வு மேற்கொள்ள விரும்புகின்றேன். உங்கள் வயதை ஒத்த சிறார்களில் பாடசாலை எவ்விதமான தாக்கத்தினை ஏற்படுத்துகின்றது என்பதினை அறிய விரும்புகின்றேன். ஆசிரியர்களும் அதிபர்களும் பாடசாலையை மாணவருக்கு ஆர்வமூட்டும் இடமாக மாற்றி எவ்வாறு அவர்களை பாடசாலையில் தொடர்ந்தும் இருப்பதற்கு உதவ முடியும் என்பதனை அறிய நான் ஆர்வமாக உள்ளேன்.

(2) நான் ஒரு ஆய்வுப்படிவத்தை பூர்த்தி செய்யப்போகின்றேன். இந்த ஆய்வானது நீங்கள் கற்றலில் எந்தளவு ஆர்வமாக உள்ளீர்கள் என்பதை அறியத் துணைபுரியும். மேலும் மாணவராகிய நீங்கள் உங்களைப் பற்றி என்ன நினைக்கிறீர்கள் என்பதை அறிய உதவும். இந்த ஆய்வுக் கருவியை நிரப்புவதற்கு முன்னர் அதற்குரிய அறிவுறுத்தல்கள் உங்களுக்கு வழங்கப்படும். நீங்கள் எதனையும் எழுதத் தேவையில்லை. சரி (✓) அடையாளத்தை இடுதல் போதுமானது. இந்தப்படிவத்தைப் பூர்த்தி செய்வதற்கு முன்னர் அல்லது உங்களுக்கு ஏதாவது பிரச்சனைகள் இருப்பின் நீங்கள் அதனைப்பற்றி என்னுடன் உரையாடலாம். உங்களுக்கு விருப்பமில்லாதவிடத்து இந்தப்படிவத்தை நிரப்பத் தேவையில்லை.

மேலும் நான் உங்களுடன் உங்கள் பாடசாலை வாழ்க்கை பற்றி கலந்துரையாடவும் அதனை ஒலிப்பதிவு செய்யவும் விரும்புகின்றேன். நான் இதனைப்பற்றி மற்றவர்களுடன் பேச மாட்டேன். இந்த ஆய்வுப்படிவத்தின் மூலம் கல்வியில் ஆர்வமற்றவர்கள் என இனங்காணப்பட்டவர்களுடன் நான் உரையாட விரும்புகின்றேன். இந்த நேர்காணல் 30 நிமிடங்கள் வரை கொண்டதாகும். சிங்கள மொழி மூலம் மாணவ ஆய்வாளர்கள் மாணவருடன் தனிப்பட்ட ரீதியில் உரையாடுவார்கள். தமிழ் மொழி மூலம் மொழி பெயர்ப்பாளர்களின் உதவி பெறப்படும். நேர்காணலின் பதிவானது நீங்கள் விரும்பினால் உங்களின் பெற்றோருக்கு வழங்கப்படும்.

(3) எனது பெற்றோர் ஏதாவது செய்ய வேண்டுமா!  
உங்கள் பெற்றோரும் இதில் மகிழ்ச்சிகரமாக இணைந்து கொள்ள முடியும்.

I certify that this record is an exact duplicate of the English version attached.

Lecturer  
Faculty of Education P. Kamathass  
The Open University of Sri Lanka

- (4) எங்கே இவை நடைபெறும்?  
ஆய்வுப்படிவம் நிரப்பும் வேலைகள் உங்களின் வகுப்பறையிலும் நேர்காணல் பாடசாலையில் பாடசாலை முடிவடைந்த பின்னரும் நடைபெறும்.
- (5) ஆய்வர்கள் எந்தத் தகவல்களைத் தெரிவிக்க விரும்புகிறார்கள். பாடசாலையைப் பற்றி, அது உங்களை கற்றலில் ஈடுபடச் செய்கின்றதா? இல்லையா? அது உங்களுக்கு ஆர்வமூட்டும் இடமா? இல்லையா? என்பன பற்றி அறிய விரும்புகிறேன். பாடசாலையை ஆர்வமுள்ள இடமாக மாற்றுவதற்கு ஆசிரியர்கள் என்ன செய்ய வேண்டும் என எதிர்பார்க்கிறீர்கள்.
- (6) என்னால் வழங்கப்பட்ட தகவல்களின் மூலம் என்ன செய்யப்போகிறீர்கள்?  
முதலில் இந்த ஆய்வுப்படிவத்தை எனது அலவலகத்திற்கு எடுத்துச் செல்வேன். அதன் பின்னர் நேர்காணல் நடைபெறும். ஒலிப்பதிவு செய்யப்பட்டவை என்னால் கவனமாகப் பார்க்கப்பட்டு முக்கியமானவையும் ஆர்வமூட்டுபவற்றையும் தெரிவு செய்வேன். ஆய்வர்கள் இந்த தகவல்களைக் கொண்டு அறிக்கையொன்றைத் தயாரிப்பர்.
- (7) உங்களுக்கு நான் வழங்கிய தகவல்களை யார் சொன்னது?  
இந்த ஆய்வுக்கான அளவிடு மற்றும் நேர்காணல் மிகவும் இரகசியமானது. நீங்கள் என்னிடம் தெரிவித்த விடயங்கள் இந்த ஆய்வுக் குழுவிடம் மட்டுமே காணப்படும். நீங்கள் என்னிடம் தெரிவித்த விடயங்களில் எந்தவொரு பகுதியும் பாடசாலையின் அறிக்கை அல்லது குறிப்புக்களில் வரமாட்டாது. சகல தகவல்களும் இரகசியமானதாக பேணப்படும்.
- (8) இந்த ஆய்வில் நான் பங்குபற்றலாமா?  
எல்லா நேரங்களில் இல்லை. நீங்கள் விருப்பத்துடன் மகிழ்ச்சியாகப் பங்குபற்ற விரும்பினால் மாத்திரம் பங்குபற்றலாம்.
- (9) நான் பங்குபற்றாவிடில் என்ன நடக்கும்.  
ஒன்றும் ஏற்படப்போவதில்லை. எனக்கு பங்குபற்ற விருப்பம் இல்லை என நீங்கள் தெரிவிக்கலாம்.
- (10) நான் பங்குபற்றுவதற்குத் தீர்மானித்தல் எனது மனதை மாற்றிக் கொள்ள முடியுமா?  
ஆம். நேர்காணலில் பங்குபற்றும் எந்தவொரு சந்தர்ப்பத்திலும் எக்கருத்தினையும் தெரிவிக்காமல் விலகிச் செல்லலாம். அத்தகைய சந்தர்ப்பங்களில் உங்களுக்கு நன்றி தெரிவித்து விடை கொடுக்க முடியும். மேலும் உங்களின் அனுபவங்களில் இரகசியமாக பேணுவற்றை நீங்கள் நேர்காணலின் போது தெரிவிக்காது விடவும் முடியும்.
- (11) இந்த ஆய்வு ஏதாவது ஒரு வகையில் எனக்கு பயனுள்ளதாக அமையுமா?  
நீங்கள் இவ்வாய்வில் பங்குபற்றுவதனுடாக ஏதேனும் பயனை அடைவீர்களா என்பது பற்றி எனக்கு ஒன்றும் கூறமுடியாது. எவ்வாறாயினும் உங்களின் கற்றல் தொடர்பான ஆர்வத்தினை அதிகரித்துக் கொள்ளலாம் என உரை முடிவதோடு எதிர்காலத்தில் அதிக நன்மைகளை பெற்றுக் கொள்ள முடியும்.
- (12) நீங்கள் இந்த ஆய்வினை மேற்கொள்வதற்கான அனுமதியினைப் பெற்றுள்ளீர்களா?  
ஆம். நான் இங்கிலாந்தின் New England பல்கலைக்கழகத்தின் மாண்டிவியல் ஆய்வுகளின் ஒழுக்ககவியல் குழுவிடம் இருந்து அனுமதியினைப் பெற்றுள்ளேன். இந்த ஆய்வு தொடர்பாக கவனமாக ஆராய்ந்து அனுமதியினை வழங்கியுள்ளனர். மேலும் ஏனைய ஆய்வாளர்கள் மற்றும் ஆசிரியர்கள், கலாநிதி தன்யா கத்தவே, கலாநிதி கிறிஸ்டோபர் வொய்லி மற்றும் பேராசிரியர் நீல் டெய்லர் போன்றோரும் இந்த ஆய்வினை கவனமாக ஆராய்ந்து இவ்வாய்வு ஒரு சிறந்த ஆய்வு என அபிப்பிராயம் தெரிவித்தள்ளனர்.

I certify that this record is an exact duplicate of the English version attached.

P. Kamathass

Lecturer, Faculty of Education, The Open University of Sri Lanka

- (13) இந்த ஆய்வு பற்றிய வேறு வினாக்கள் ஏதேனும் இருக்கின்றதா?  
இந்த ஆய்வு தொடர்பாக வேறு ஏதேனும் சந்தேகங்கள் இருப்பின், எனது ஆய்வின் தலைமை மேற்பார்வையாளர்கள் கலாநிதி தன்யா கத்தவே இணை எந்த நேரத்திலும் தொடர்பு கொள்ளலாம். அவரது அலுவலக தொலைபேசி இலக்கம் +61267733896 ஆகும். மேலும் நீங்கள் கலாநிதி கிறிஸ்ரோபர் வொய்லியினை +61267732953 என்ற இலக்கத்தடனும் பேராசிரியர் நீல் டெய்லர் இணை +61267735064 அல்லது +61267730659 என்ற இலக்கங்கள் ஊடாகவும் தொடர்பு கொள்ளலாம்.

மேலும் இவ்வாய்வு மேற்கொள்ளப்படும் முறை தொடர்பாக முறைப்பாடுகள் மற்றும் மேலதிக விசாரணைகளுக்காக கீழ்வரும் நபர்களோடு தொடர்பு கொள்ளலாம்.

சிங்கள மொழிமூல உள்நாட்டு ஆய்வு அதிகாரி

திருமதி. D. V. M. de சில்வா  
விரிவுரையாளர்  
கல்விப்பீடம்  
இலங்கைத் திறந்த பல்கலைக்கழகம்,  
நாவல், நுகேகொட, இலங்கை  
தொலைபேசி: +94112881389  
மின்னஞ்சல்: [duzil@ou.ac.lk](mailto:duzil@ou.ac.lk)

தமிழ் மொழிமூல உள்நாட்டு ஆய்வு அதிகாரி  
திரு. S. S. சசுத்தீன்  
சிறேஷ்ட விரிவுரையாளர்  
கல்விப்பீடம்  
இலங்கைத் திறந்த பல்கலைக்கழகம்,  
நாவல், நுகேகொட, இலங்கை  
தொலைபேசி: +94112881389  
மின்னஞ்சல்: [sszar@ou.ac.lk](mailto:sszar@ou.ac.lk)

ஆய்வு ஒழுக்கங்களுக்கான அதிகாரி  
ஆய்வுகள் சேவை  
New England பல்கலைக்கழகம்,  
Armidale, NSW 2351  
தொலைபேசி: +61267733449 Fax: +61267733543  
மின்னஞ்சல்: [ethics@une.edu.au](mailto:ethics@une.edu.au)

- (14) நேர்காணல் முடிந்த பின்னர் என்னுடைய கருத்துக்கள், உணர்வுகள் அல்லது பிரச்சினைகள் தொடர்பாக கருத்துக்களை யாருடன் பகிர்ந்து கொள்ளலாம்.  
உங்களது கருத்துக்கள், உணர்வுகள் அல்லது பிரச்சினைகளை இந்த ஆய்வுக்கரிய ஆய்வுக்குழுவுடன் அல்லது உங்களது ஆசிரியர், பெற்றோர் போன்றோருடன் கலந்துரையாடலாம்.

- (15) முறையான அனுமதி :  
இந்த ஆய்வு செயற்றிட்டத்திற்கான முறையான அனுமதி New England பல்கலைக்கழகத்தின் ஆய்வுக்கான ஒழுக்கவியல் குழுவினால் வழங்கப்பட்டுள்ளது.  
(அனுமதி இல : ...../ செல்லுபடியாகும் காலம் : ...../...../.....)

இந்த தகவல் படிவத்தினை உங்களின் நண்பர்கள், குடும்பத்தினர் அல்லது உறவினர்களோடு கலந்துரையாடுவதற்காக வைத்துக் கொள்ளலாம்.

இந்த தகவல் படிவத்தினை வாசித்து தகவல் வழங்கியதோடு தேவையான உதவிகளை செய்தமைக்காக மிகவும் நன்றிகள்.

திருமதி. ருவந்திகா பெரேரா.  
I certify that this record is an exact duplicate of the English version attached.



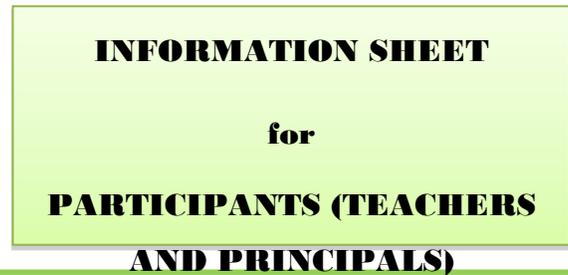
Lecturer,  
Faculty of Education,  
The Open University,  
of Sri Lanka.

# APPENDIX U: Information sheets for participants (teachers and principals) in all three media

## Information sheet for participants-English-medium



School of Education  
University of New England  
Armidale NSW 2351  
Australia  
Phone 02 6773 3716  
Fax 02 6773 2445  
Email education@une.edu.au



My name is Ruwandika Perera and I am conducting this research as part of my PhD in the School of Education at the University of New England. My supervisors are Dr. Tanya Hathaway, Dr. Christopher Boyle and Prof. Neil Taylor.

I wish to invite you to participate in my research project, described below.

<b>Research Project</b>	<b>The impact of junior secondary students' motivation and engagement on school attrition in low socio-economic districts in Sri Lanka</b>
<b>Aim of the research</b>	The research aims to explore <b>Research Questions</b> <ol style="list-style-type: none"><li>1. What are the levels of motivation amongst junior secondary students in low socio-economic districts in Sri Lanka?</li><li>2. Do levels of motivation vary with gender, ethnicity and district?</li><li>3. What school related factors impact on students' motivation and engagement in learning?</li><li>4. What can be done to improve students' motivation and engagement in learning within schools?</li></ol>
<b>Interview</b>	I would like to conduct a face-to-face interview with you at your school. The interview will take approximately half an hour. With your permission, I will make an audio recording of the interview to ensure that I accurately recall the information you provide. Following the interview, a transcript will be provided to you if you wish to see one.

<b>Confidentiality</b>		Any information or personal details gathered in the course of the study will remain confidential. No individual will be identified by name in any publication of the results. All names will be replaced by pseudonyms; this will ensure that you are not identifiable. If you agree I would like to quote some of your responses. This will also be done in a way to ensure that you are not identifiable.
<b>Participation Voluntary</b>	<b>is</b>	Please understand that your involvement in this study is voluntary and I respect your right to withdraw from the study at any time. You may discontinue the interview at any time without consequence and you do not need to provide any explanation if you decide not to participate or withdraw at any time.
<b>Questions</b>		The interview questions will not be of a sensitive nature: rather they are general, aiming to enable you to enhance my knowledge of the junior secondary students' motivation and engagement in learning.
<b>Use of information</b>		I will use information from the interview as part of my doctoral thesis, which I expect to complete in December 2017. It is also intended that the Information of this study will be published in journal articles, book chapter, and/or a book publication. Further, information of this study will be presented at research conferences. At all time, I will safeguard your identity by presenting the information in a way that will not allow you to be identified. Pseudonyms will be used in instances where participants' responses are directly quoted.
<b>Upsetting issues</b>		It is unlikely that this research will raise any personal or upsetting issues but if it does you may wish to contact Mr. K.P.N. Premasari, Deputy Director of Education, Psycho-social Felicitation and Counselling Unit, Co-curricular Activities, Guidance, Counselling, Social Integration and Peace Education Branch, Ministry of Education, Sri Lanka at 0112784873-ext-1161
<b>Storage information</b>	<b>of</b>	I will keep hardcopy recordings and notes of the interview in a locked cabinet at the researcher's office at the University of New England's School of Education. Any electronic data will be kept on a password protected computer in the same School. Only the research team will have access to the data.
<b>Disposal information</b>	<b>of</b>	All the data collected in this research will be kept for a minimum of five years after successful submission of my thesis, after which it will be disposed of by deleting relevant computer files, and destroying or shredding hardcopy materials.
<b>Approval</b>		This project has been approved by the Human Research Ethics Committee of the University of New England (Approval No. HE15-233 valid from 20 October 2015 to 20 October 2016).

**Contact details**

Feel free to contact me with any questions about this research by email at [rperera4@une.edu.au](mailto:rperera4@une.edu.au) or by phone on +61267730659  
You may also contact my supervisors. My Principal supervisor is Dr. Tanya Hathaway and she can be contacted at [thathawa@une.edu.au](mailto:thathawa@une.edu.au) or +61267733896 and my Co-supervisors names are Dr. Christopher Boyle and Prof. Neil Taylor. Dr. Christopher Boyle can be contacted at [cboyle7@une.edu.au](mailto:cboyle7@une.edu.au) or +61267732953 and Prof. Neil Taylor can be contacted at [atntaylor6@une.edu.au](mailto:atntaylor6@une.edu.au) or +61267735064.

**Complaints**

If you have any complaints concerning the manner in which this research is conducted, please contact:

Local Research Officer Tamil medium at:

Mrs. D.V.M. De Silva

Lecturer

Faculty of Education

The Open University of Sri Lanka

Nawala, Nugegoda, Sri Lanka

Tel: +94112881389

Email: [dvsil@ou.ac.lk](mailto:dvsil@ou.ac.lk)

Local Research Officer Tamil medium at:

Mr. S.S. Zarookdeen

Senior Lecturer

Faculty of Education

The Open University of Sri Lanka

Nawala, Nugegoda, Sri Lanka

Tel: +94112881389

Email: [sszar@ou.ac.lk](mailto:sszar@ou.ac.lk) OR

Research Ethics Officer at:

Research Services

University of New England

Armidale, NSW 2351

Tel: +61267733449 Fax: +61267733543

Email: [ethics@une.edu.au](mailto:ethics@une.edu.au)

Thank you for considering this request and I look forward to further contact with you.

regards,

Ruwandika Perera

# Information sheets for participants-Sinhala-medium



School of Education  
 University of New England  
 Armidale NSW 2351  
 Australia  
 Phone 02 6773 3716  
 Fax 02 6773 2445  
 Email education@une.edu.au

**INFORMATION SHEET**  
**for**  
**PARTICIPANTS (TEACHERS AND PRINCIPALS)**

සහභාගී වන්නන් (ගුරුවරුන් සහ විදුහල්පතිවරුන්) සඳහා වන තොරතුරු පත්‍රිකාව

මම රුවන්දිකා පෙරේරා වන අතර, මෙම අධ්‍යයනය New England විශ්ව විද්‍යාලයේ, අධ්‍යාපන පාසලේ සිදුකරනු ලබන, මාගේ ආචාර්ය උපාධියේ එක් අංශයක් ලෙස ක්‍රියාත්මක කරනු ලැබේ. මගේ අධීක්ෂකවරුන් වන්නේ, ආචාර්ය ටැන්ගා හන්ට්. ආචාර්ය ක්‍රිස්ටෝෆර් බොයිලේ සහ මහාචාර්ය හීල් ටේලර් යන මහත්ම මහත්මීන්ය.

පහත විස්තර කර ඇති මාගේ පර්යේෂණ ව්‍යාපෘතිය සඳහා සහභාගීවීමට මම ඔබට ආරාධනා කරමි.

<p>පර්යේෂණ ව්‍යාපෘතිය</p>	<p>ශ්‍රී ලංකාවේ පහළ සමාජ - ආර්ථික දියුණුකවල කතිෂ්ඨ ද්විතියික ශිෂ්‍යයන්ගේ පාසල් හැරුණු කෙරෙහි පෙළඹීම සහ නියුක්තිකරණයෙහි ඇති බලපෑම.</p>
<p>පර්යේෂණ අරමුණ</p>	<p>මෙම පර්යේෂණයෙන් ගවේෂණය කිරීමට අරමුණු කරන්නේ,                  1. ශ්‍රී ලංකාවේ පහළ සමාජ - ආර්ථික දියුණුකවල, කතිෂ්ඨ ද්විතියික ශිෂ්‍යයන්ගේ පෙළඹීමෙහි මට්ටම් මොනවාද?                  2. එම පෙළඹීමෙහි මට්ටම, ස්ත්‍රී පුරුෂ බව, ජන වර්ගය සහ දියුණුකය අනුව වෙනස් වේද?                  3. ශිෂ්‍යයන්ගේ ඉගෙනුමට ඇති පෙළඹීම සහ නියුක්තිකරණය කෙරෙහි බලපාන පාසල ආශ්‍රිත සාධක මොනවාද?                  4. ශිෂ්‍යයන්ගේ පෙළඹීම සහ නියුක්තිකරණය වැඩි දියුණු කිරීම සඳහා පාසල තුළදී කළ හැක්කේ මොනවාද? යන්නය.</p>

<p>සම්මුඛ සාකච්ඡා</p>	<p>මම ඔබ සඳහා ඔබගේ පාසලේ දී සම්මුඛ සාකච්ඡාවක් පැවැත්වීමට අදහස් කරමි. මෙම සම්මුඛ සාකච්ඡාව සඳහා දළ වශයෙන් පැය භාගයක් පමණ කාලයක් වැයවේ. ඔබගේ අවසරය ඇතිව මව්පියන් සම්මුඛ සාකච්ඡාවේ ශ්‍රව්‍ය පටිගත කිරීමක් සිදු කරනු ලැබේ. මන්ද ඔබ විසින් සපයනු ලබන තොරතුරු නැවත නිවැරදිව මතකයට නැංවිය හැකි බැවිනි සම්මුඛ සාකච්ඡාවෙන් අනතුරුව ඔබගේ කැමැත්ත අනුව එහි පිටපතක් ඔබවෙත සපයනු ලැබේ.</p>
<p>රහස්‍යභාවය</p>	<p>මෙම අධ්‍යයනය සඳහා රැස් කරනු ලබන සියලුම තොරතුරු නැත්නම් පොද්ගලික විස්තරවල රහස්‍යභාවය සුරකිනු ලැබේ. කිසිදු පර්යේෂණ ප්‍රතිඵල ප්‍රකාශනයක කිසිදු පුද්ගලයෙකු නමින් හඳුනාගැනීමේ හැකියාවක් නොමැත. සියලුම නම් ආරාධි නම් මගින් ප්‍රකාශයට පත් කරනු ලබන අතර මෙමගින් ඔබට හඳුනාගත නොහැකිබව තහවුරු වේ. ඔබ කැමතිනම් පමණක් ඔබගේ ප්‍රතිචාර කිහිපයක් උපුටා ගැනීමට ලක්වනු ඇත එයද සිදු කරනු ලබන්නේ ඔබට හඳුනාගැනීමට නොහැකි බව තහවුරු වන ආකාරයෙනි.</p>
<p>ස්වේච්ඡා සහභාගිත්වය</p>	<p>මෙම අධ්‍යයනය සඳහා ඔබගේ සහභාගිත්වය ස්වේච්ඡා එකකි. ඕනෑම අවස්ථාවක ඉන් ඉවත්වීමට ඔබට ඇති අයිතියට මම ගරු කරමි. එසේම කිසිදු ප්‍රතිවිපාකයකින් තොරව මෙම සම්මුඛ සාකච්ඡාවෙන් ඉවත්වීමට ඔබට හැකියාවක් ඇත. ඔබ මෙම අධ්‍යයනය සඳහා සහභාගි නොවීමට අදහස් කරන්නේ නම් හෝ ඕනෑම අවස්ථාවක ඉන් ඉවත්වීමට අදහස් කරන්නේ නම්, ඒ සඳහා කිසිදු කැරුණු දැක්වීමක් අවශ්‍ය නොවේ.</p>

<p>ප්‍රශ්න</p>	<p>සම්මුඛ සාකච්ඡා ප්‍රශ්න සංවේදී ස්වභාවයෙන් යුක්ත නොවේ. ඒවා බොහෝ දුරට සාමාන්‍ය ඒවා වේ. එමගින් කණිෂ්ඨ අවිනිශ්චිත ශිෂ්‍යයන්ගේ ඉගෙනුමට ඇති පෙළඹීම සහ නියුක්තිකරණය කෙරෙහි මා සතු දැනුම වර්ධනය කිරීමට ඔබට හැකියාව ලැබේ.</p>
<p>තොරතුරු භාවිතය</p>	<p>සම්මුඛ සාකච්ඡාවෙන් ලබා ගන්නා තොරතුරු මව්සින් 2017 දෙසැම්බර් මස නිම කිරීමට අපේක්ෂිත මගේ ආචාර්ය උපාධි නිබන්ධනයේ එක් අංශයක් ලෙස භාවිත කරනු ලැබේ. එසේම මෙම අධ්‍යයනයේ තොරතුරු, ජාතික ලිපි, පොත් පරිච්ඡේද සහ / හෝ පොතක් ලෙස ප්‍රකාශනය කිරීමට අපේක්ෂා කරනු ලැබේ. තවදුරටත් මෙම අධ්‍යයනයේ තොරතුරු පර්යේෂණ සම්මන්ත්‍රණවලදී ඉදිරිපත් කිරීමට අපේක්ෂා කරනු ලැබේ.</p> <p>ඔබගේ තොරතුරු ඉදිරිපත් කිරීමේදී හැමවිටම ඔබව හඳුනා ගැනීමට නොහැකිවන ආකාරයට ඔබගේ අනන්‍යතාව ආරක්ෂා කරනු ලැබේ. සහභාගිවන්නන්ගේ ප්‍රතිචාර කෙලින්ම උපුටා ගනු ලබන අවස්ථාවලදී ආරාධි නාම භාවිතා කරනු ලැබේ.</p>
<p>සිත ව්‍යාකූල කරවන ගැටලු</p>	<p>මෙම අධ්‍යයනයෙන් පුද්ගලික හෝ සිත ව්‍යාකූල කරවනුපිටි ගැටලු පැන නොනගිනු ඇත. නමුත් එවැනිත් සැන නැගුණහොත් ඔබට කේ.පී.එන්. ජේෂ්වර් මහතා, නියෝජ්‍ය අධ්‍යාපන අධ්‍යක්ෂ, මහෝ - සමාජ අභිනන්දන සහ උපදේශන ඒකකය, විෂය සමගාමී ක්‍රියාකාරකම් මාර්ගෝපදේශය, උපදේශනය, සමාජ ඒකාබද්ධතාව සහ සාම අධ්‍යාපන අංශය, අධ්‍යාපන අමාත්‍යාංශය ශ්‍රී ලංකාව යන ලිපිනයට 0112784873 දිගුව 1161 ඇමරිමෙන් ඒ බව දැන්විය හැකිය.</p>
<p>තොරතුරු ගබඩාකරණය</p>	<p>සම්මුඛ සාකච්ඡාවේ ලිපි ලේඛන වාර්තා සහ සටහන් New England විශ්වවිද්‍යාලයේ අධ්‍යාපන පාසලේ ඇති පර්යේෂක කාර්යාලයේ වසන ලද අල්මාරියක තැන්පත් කරනු ලැබේ. සියලුම ඉලෙක්ට්‍රොනික දත්ත එම පාසලේ ම මුර පදයක් (Password ) මගින් ආරක්ෂා කරනලද පරිගණකයක ගබඩා කරනු ලැබේ පර්යේෂණ කණ්ඩායමට පමණක් එම දත්තවලට ප්‍රවේශවීමේ හැකියාව ඇත .</p>

<p>තොරතුරු විනාශකිරීම</p>	<p>මෙම පරීක්ෂණය සඳහා එකතු කරන ලද සියලුම දත්ත මාගේ උපාධි නිබන්ධනය සාර්ථකව තාර්කිකව අනතුරුව අවම වශයෙන් අවුරුදු පහක් තබාගන්නා අතර අනතුරුව අදාළ පරිගණක දත්ත මකා දමනු ලබන අතර ලිපි ලේඛන තීරු කොට ඉටු දමනු ලැබේ.</p>
<p>අනුමැතිය</p>	<p>මෙම ව්‍යාපෘතිය New England විශ්වවිද්‍යාලයේ මානව පර්යේෂණ ආචාර ධර්ම කමිටුවේ අනුමැතිය ලබා ඇත. (අනුමැති අංකය HE15 - 233 වලංගු කාලය 2015 ඔක්තෝබර් 20 - 2016 ඔක්තෝබර් 20)</p>
<p>සම්බන්ධීකරණ තොරතුරු</p>	<p>ඔබට මෙම පරීක්ෂණය පිළිබඳව ඇති ඕනෑම ප්‍රශ්නයක් පිළිබඳව මා හට <a href="mailto:pperera4@une.edu.au">pperera4@une.edu.au</a> යන විද්‍යුත් ලිපිනයට හෝ 061267730659 ඇමරිකානු හෝ දුන්විය හැකිය. එසේම ඔබට මාගේ අධීක්ෂකවරුන් සමඟද සම්බන්ධීකරණය සිදුකළ හැකිය. මගේ ප්‍රධාන අධීක්ෂකවරිය වන ආචාර්ය ටානියා හතරේ මහත්මිය <a href="mailto:thathawa@une.edu.au">thathawa@une.edu.au</a> යන විද්‍යුත් ලිපිනයෙන් හෝ +61267733896 ඇමරිකානු සම්බන්ධ කර ගත හැකිය. මගේ අතිකුත් අධීක්ෂකවරුන් වන්නේ ආචාර්ය ක්‍රිස්ටෝෆර් බොයිල් සහ මහාචාර්ය හිල් ටේලර් යන මහත්වරුන්ය. ආචාර්ය ක්‍රිස්ටෝෆර් බොයිල් මහතා <a href="mailto:cboyle7@une.edu.au">cboyle7@une.edu.au</a> යන විද්‍යුත් ලිපිනයෙන් හෝ +61267732953 ඇමරිකානු මහාචාර්ය හිල් ටේලර් මහතා <a href="mailto:ntaylor6@une.edu.au">ntaylor6@une.edu.au</a> යන විද්‍යුත් ලිපිනයෙන් හෝ +61267735064 ඇමරිකානු සම්බන්ධ කර ගත හැකිය.</p>
<p>පැමිණිලි</p>	<p>මෙම පර්යේෂණය ක්‍රියාත්මක කරන ආකාරය පිළිබඳව ඔබට කුමන ආකාරයේ හෝ පැමිණිල්ලක් ඉදිරිපත් කිරීමට අත්හැකි කරුණාකර පහත සඳහන් පුද්ගලයන් වෙත දැන්වන්න. දේශීය පර්යේෂණ නිලධාරී- සිංහල මාධ්‍යය ඩී.වී. එම්.ද සිල්වා මහත්මිය, කවිකාවාර්ය, අධ්‍යාපන පීඨය, ශ්‍රී ලංකා විවෘත විශ්ව විද්‍යාලය, නාවල, නුගේගොඩ, ශ්‍රී ලංකාව. දුරකථනය : 94112881389</p>

විද්‍යුත් ලිපිනය : [dvsil@ou.ac.lk](mailto:dvsil@ou.ac.lk)  
දේශීය පර්යේෂණ නිලධාරී -දෙමළ මාධ්‍යය  
එස්. එස්. කරුක්ඛිත් මහතා  
ජ්‍යෙෂ්ඨ කට්ඨාසාර්ථක  
අධ්‍යාපන පීඨය  
ශ්‍රී ලංකා විවෘත විශ්වවිද්‍යාලය  
නාවල, නුගේගොඩ, ශ්‍රී ලංකාව  
දුරකථනය : 094112881389

විද්‍යුත් ලිපිනය : [sszar@ou.ac.lk](mailto:sszar@ou.ac.lk)

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පර්යේෂණ ආචාර ධර්ම නිලධාරී  
පර්යේෂණ කේන්ද්‍රය

New England විශ්වවිද්‍යාලය  
ආම්බේල්, NSW 2351, ඕස්ට්‍රේලියාව  
දුරකථනය : 061267733449  
ෆැක්ස් : 061267733543

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මෙම ඉල්ලීම සලකා බැලීම පිලිබඳව ස්තූතියෙන්ම වන අතර,  
ඔබගේ සහයෝගය තවදුරටත් ලබා ගැනීමට අපේක්ෂා කරමි.  
ස්තූතියි.  
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## Information sheets for participants-Tamil-medium



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### INFORMATION SHEET for PARTICIPANTS (TEACHERS AND PRINCIPALS)

பங்குபற்றுவோருக்கான (அதிபர், ஆசிரியருக்கான) தகவற்படிவம்

எனது பெயர் குவந்திக்கா பெரேரா. நான் இங்கிலாந்தின் New England பல்கலைக்கழகத்தில் கலாநிதி பட்டப்படிப்பிற்காக ஆய்வொன்றினை மேற்கொள்கின்றேன். எனது ஆய்விற்கான மேற்பார்வையாளர்களாக கலாநிதி. Tanya Hathaway, கலாநிதி. Christopher Boyle, கலாநிதி. Neil Taylor போன்றோர் இருந்து வருகின்றனர்.

கீழே விவரிக்கப்பட்டுள்ள எனது ஆய்வில் உங்களைப் பங்குகொள்ளுமாறு அன்புடன் அழைக்கின்றேன்.

ஆய்வியெயற்றிட்டம்

இலங்கையின் தாழ்ந்த சமூகபொருளாதார மாவட்டங்களில் கனிஷ்ட இடைநிலை மாணவர்களைப் பாடசாலைகளில் நிலைத்திருக்கச் செய்வதில் அவர்களுக்கான ஊக்கவித்தல் மற்றும் ஈடுபாட்டின் தாக்கம்

ஆய்வின் நோக்கம்

இந்த ஆய்வின் நோக்கங்களின் ஊடாகக் கண்டறியப்படவுள்ளவைகள்

1. இலங்கையின் தாழ்ந்த சமூகபொருளாதாரமாவட்டங்களின் கனிஷ்ட இடைநிலைப் பிரிவுமாணவர்கள் கொண்டுள்ள ஊக்கல் மட்டங்கள் எத்தகையவை?
2. ஊக்கல் மட்டம் பால், இன மற்றும் மாவட்டங்களின் அடிப்படையில் வேறுபடுகின்றனவா?
3. கற்றலில் தாக்கம் செலுத்தும் பாடசாலைபுடன் தொடர்புபட்ட ஊக்கல் மற்றும் ஈடுபாடுதொடர்பான காரணிகள் யாவை?
4. பாடசாலைகளின் மாணவர்கள் ஊக்கலுடனும் ஈடுபாட்டுடனும் கற்றலை முன்னேற்றுவதற்கு மேற்கொள்ளக்கூடிய நடவடிக்கைகள் யாவை?

நேர்காணல்

நான் உங்களுடைய பாடசாலையில் வைத்து உங்களை நேருக்குநேர் சந்தித்து நேர்முகம் காண்பதற்கு விரும்புகின்றேன். இந்த நேர்காணலுக்கு அண்ணளவாக (1/2) அரைமணித்தியாலங்கள் தேவைப்படும். உங்களின் அனுமதியோடு நீங்கள் கூறும் தகவல்களைச் சரியாக மீண்டும் மீட்டிப் பார்ப்பதற்காக ஒலிப்பதிவு செய்து கொள்ளவுள்ளேன். நேர்காணல் படிவம் ஒன்றினை நீங்கள் பார்ப்பதற்கு விருமபிளால் அதனை நான் வழங்குவதற்குத் தயாராகவுள்ளேன்.

இரகசியத்தன்மை

இந்தகற்கைக்காக சேகரிக்கப்படும் எந்தவொரு தகவலும் தனியாள் சார்ந்த விபரங்களும் மிகவும் இரகசியத்தன்மையுடன் பயன்படுத்தப்படும். ஆய்வுப் பெறியோகளை வெளியிடும்போது எந்தவொரு தனிநபரின்மும் பெயர்கள் சுட்டிக்காட்டப்படமாட்டாது. ககல் பெயர்களும் குறிப்பிடுகனாக மாற்றியமைக்கப்படவுள்ளதால், தகவல் வழங்கிய உங்களை வராவும் அடையாளங்காணமுடியாது என்பதை இது உறுதிப்படுத்துவதாக அமையும். நீங்கள் உடன்படுவீர்களாயின் உங்களின் துலங்கல்களில் சிலவற்றை நான் மேற்கோள் இட்டுக்காட்டலாம். இதுவும் கூட உங்களை அடையாளங்காண முடியாதவாறே செய்யப்படும்.

கயாதீனமான பங்குபற்றல்

இந்த ஆய்விற்கான உங்களின் பங்குபற்றல் மிகவும் கயாதீனமானது. ஆய்வுக்காக தகவல் அளிக்கும்போது எந்தவொரு சந்தர்ப்பத்திலும் தகவல் அளிப்பதில் இருந்து நீங்கள் விலகிச் செல்வதற்கு உங்களுக்கு உரிமை உள்ளது என்பதை நான் மதிக்கின்றேன்.

வினாக்கள்

இந்த நேர்காணல் வினாக்கள் உங்களின் உணர்வுகளைப் பாதிக்கும் வகையில் அமைந்தவை அல்ல. அவை பொதுவானவை. அவை கனிஷ்ட இடைநிலைப்பிரிவு மாணவர்கள் கற்றலில் காட்டும் ஊக்கல் மற்றும் ஈடுபாடு தொடர்பிலான எனது அறிவை மேம்படுத்திக் கொள்ளும் நோக்கில் கேட்கப்பட்டுள்ளன.

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nead Department of Education  
Faculty of Education  
The Open University of Sri Lanka  
Nawala, Nugegoda

தகவல் பயன்படுத்தல்

நான் 2017 டிசம்பர் மாதம் நிறைவு செய்வதற்கு திட்டமிட்டுள்ள எனது கலாநிதிப் பட்டத்திற்கான ஆய்வுக்காக உங்களிடமிருந்து பெற்றுக் கொள்ளும் தகவல்களைப் பயன்படுத்தவுள்ளேன். மேலும் இந்த ஆய்வுக்காகப் பெறப்படும் தகவல்கள் ஆய்வுடன் தொடர்புபட்டதாக வெளியிடப்படும் ஆய்வுக் கட்டுரைகள், நூல்களின் அத்தியாயங்கள் மற்றும் வெளியிடப்படவுள்ள நூல் என்பவற்றுக்காகவும் பயன்படுத்தப்படும். இவற்றுக்கு மேலதிகமாக இத்தகவல்கள் ஆய்வு மாநாடுகளிலும் முன்வைக்கப்படும்.

தகவல்கள் முன்வைக்கப்படும் மேற்படி எல்லா சந்தர்ப்பங்களிலும் உங்களின் அடையாளத்தைப் பாதுகாக்கக்கூடிய வகையிலும் நடந்துகொள்வேன் என உறுதியளிக்கின்றேன். தகவல் வழங்குபவரின் விபரங்கள் அனுமதியுடன் மேற்கோளாகக் காட்டப்படும் இடங்களில் மாத்திரமே பயன்படுத்தப்படும்.

ஆய்வுதொடர்பான

பிரச்சினைகள்

இந்த ஆய்வுடன் தொடர்புபட்டவகையில் எழக்கூடிய பிரச்சினைகள் அல்லது சந்தேகங்களுக்கு மேலதிக விளக்கங்கள் தேவைப்படுமாயின், திரு. K. P. N. பிரேமசிரி, பிரதிகல்விப் பணிப்பாளர், உள்சமூகவசதியளித்தல் மற்றும் ஆலோசனைவழங்கல் பிரிவு, இணைக்கலைத்திட்டச் செயற்பாடுகள், வழிகாட்டல் மற்றும் ஆலோசனைசேவை, சமூக ஒன்றிணைப்பு மற்றும் சமாதானக் கல்விப் பிரிவு, கல்வி அமைச்சு, இலங்கை என்ற முகவரியில் 0112784873 நம்பு 1161 என்னும் தொலைபேசியுடன் தொடர்புகொண்டுபெற்றுக்கொள்ளலாம்.

தகவல்களைக்

களஞ்சியப்படுத்தல்

நான் இங்கிலாந்தின் New England பல்கலைக்கழகத்தில் School of Education பிரிவில் அமைந்துள்ள எனது ஆய்வுக்குரிய அலுவலகத்தில் எழுத்து வடிவிலான ஆய்வுத் தகவல்கள் மற்றும் குறிப்புக்களைப் பாதுகாப்பாக அனுமரியில் வைக்கவுள்ளேன். இலத்திரனியல் தகவல்களை எனது கடவுச்சொல்லுடனான (Password) கணினியில் வைத்திருப்பேன். ஆய்வுக் குழுவினர் மாத்திரம் இத்தகவல்களைக் கையாள முடியும்.

ஆய்வுக்குரிய

தகவல்களை அழித்தல்

இந்த ஆய்வுக்காகச் சேகரிக்கப்பட்ட அனைத்துத் தகவல்களும் எனது ஆய்வுறிக்கைகளைச் சமர்ப்பித்ததன் பின்னர் குறைந்தபட்சம் ஐந்து (05) வருடங்கள் பாதுகாப்பில் வைத்திருப்பேன். அதன் பின்னர் கணினியில் கோண்படுத்தப்பட்டு சேமிக்கப்பட்ட தகவல்கள் மற்றும் எழுத்துவடிவத் தகவல்கள் அழிக்கப்படும்.

அனுமதி

இவ்வாய்வுச் செயற்றிட்டம் New England பல்கலைக்கழகத்தின் 'மாணிடவியல் ஆய்வுக்கான ஒழுக்கக் குழு' அனுமதிக்கப்பட்டதன் பின்னரே மேற்கொள்ளப்படுகின்றது.

தொடர்புகொள்வதற்கான

விபரங்கள்

இந்த ஆய்வுக்கான நேர்காணல் வினாக்கள் பற்றி நீங்கள் மிகவும் சுதந்திரமாக எந்த நேரத்திலும் rperera4@une.edu.lk எனும் மின்னஞ்சல் முகவறுக்கு மின்னஞ்சல் செய்வதன் மூலமோ +61267730659 எனும் தொலைபேசி இலக்கத்துடனோ தொடர்புகளைப் பேணலாம். மேலும்

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Head Dept. of Secondary & Tertiary Education  
Faculty of Education  
The Open University of Sri Lanka  
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முறைப்பாடுகள்

ஆய்வு தொடர்பான மேலதிக தகவல்களை அறிந்துகொள்வதற்காக என்னுடைய மேற்பார்வையாளர்களுடனும் தொடர்புகளை நீங்கள் பேணலாம். எனது பிரதான மேற்பார்வையாளர் கலாநிதி, Tanya Hathaway என்பவரின் மின்னஞ்சல் [thathawa@une.edu.au](mailto:thathawa@une.edu.au) ஆகும். அவரது தொலைபேசி இலக்கம் +61267733896 ஆகும். மேலும் எனது இணைமேற்பார்வையாளர்கள் கலாநிதி, Christopher Boyle, ([cboyle7@une.edu.au](mailto:cboyle7@une.edu.au) அல்லது +61267732953) பேராசிரியர், Neil Taylor ([ntaylor6@une.edu.au](mailto:ntaylor6@une.edu.au) அல்லது +61267735064) போன்றோருடனும் தொடர்புகொண்டு விபரங்களை அறிந்து கொள்ளலாம்.

இந்த ஆய்வினை மேற்கொள்ளும் வழிமுறைகள் தொடர்பாக ஏதாவது முறைப்பாடுகளை நீங்கள் தெரிவிக்க விரும்பினால் பின்வரும் நபர்களிடம் தெரிவிக்கலாம்.

சிங்கள மொழிமூல உள்நாட்டு ஆய்வு அதிகாரி  
திருமதி. D. V. M. டி சில்வா  
விரிவுரையாளர்  
கல்விப்பீடம்  
இலங்கைத் திறந்தபல்கலைக்கழகம்,  
நாவல, நுகேக்கொட, இலங்கை  
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மின்னஞ்சல்: [dsil@ou.ac.lk](mailto:dsil@ou.ac.lk)

தமிழ் மொழிமூல உள்நாட்டு ஆய்வு அதிகாரி  
திரு. S. S. சசுத்தீன்  
சிரேஷ்ட விரிவுரையாளர்  
கல்விப்பீடம்  
இலங்கைத் திறந்தபல்கலைக்கழகம்,  
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தொலைபேசி: +94112881389  
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அல்லது

ஆய்வு ஒழுக்கங்களுக்கான அதிகாரி  
ஆய்வுகள் சேவை  
New England பல்கலைக்கழகம்,  
Armidal, NSW 2351  
தொலைபேசி: +61267733449 Fax: +61267733543  
மின்னஞ்சல்: [ethics@une.edu.au](mailto:ethics@une.edu.au)

நீங்கள் இந்த ஆய்வுக்கான நேர்காணலில் பங்குபற்றியமைக்காக நன்றி தெரிவிப்பதோடு தேவையானபோது தொடர்ச்சியான தொடர்புகளை உங்களோடு பேணுவதற்கு முயற்சிக்கின்றேன்.

இப்படிக்கு  
ருவாந்திக்கா பெரேரா.

I certify that this record is an exact duplicate  
of the English version attached.

3

Head Dept. of Secondary & Tertiary Education  
Faculty of Education  
The Open University of Sri Lanka  
Nawala, Nugegoda

## APPENDIX V-Information sheets for parents in all three media



Information sheet for parents-English-medium

School of Education  
University of New England  
Armidale NSW 2351  
Australia

**INFORMATION SHEET**

**for**

**PARENTS**

My name is Ruwandika Perera and I am conducting this research as part of my PhD in the School of Education at the University of New England. My supervisors are Dr. Tanya Hathaway, Dr. Christopher Boyle and Prof. Neil Taylor.

I wish to invite your son/daughter to participate in my research project, described below.

### **Research Project**

### **The impact of junior secondary students' motivation and engagement on school attrition in low socio-economic districts in Sri Lanka**

### **What is the study for and why is it being done**

I'm conducting a study to confront the dropout crisis by examining why junior secondary students become disinterested in their learning due to school related factors. This study examines the school related factors that impact junior secondary students learning and how school leaders can create conditions to re-engage and support students before they attrition of school. The study seeks to investigate, identify, analyse, and compare the common elements that impact student learning during junior secondary years, occurring at type two (2) government schools in Sri Lanka. Finally, the study will make recommendations for school leaders to support students in their junior secondary education to increase their interest and academic performance.

### **Aim of the research**

The research aims to explore

### **Research Questions**

1. What are the levels of motivation amongst junior secondary students in low socio-economic districts in Sri Lanka?
2. Do levels of motivation vary with gender, ethnicity and district?
3. What school related factors impact on students' motivation and engagement in learning?
4. What can be done to improve students' motivation and engagement in learning within schools?

### **Survey**

I want to your son/daughter to fill a survey. This survey has been given to your son/daughter to examine his/her interest in learning, how your son/daughter studies, and what your son/daughter thinks of him/herself as a student. It will approximately take 30 minutes to complete. Before start filling the survey all the instructions will be given to your son/daughter. In that, your son/daughter will not need to write anything. Just your son/daughter will have

to put ticks. If your son/daughter has any concerns, before, during, or after the survey, he/she can talk to me.

**Interview**

I would like to conduct a face-to-face interview with your son/daughter at his/her school. The interview will take approximately half an hour. With your permission, I will make an audio recording of the interview to ensure that I accurately recall the information your son/daughter provides. Following the interview, a transcript will be provided to you or your son/daughter if he/she wishes to see one. Each survey session will be held at your son/daughter's own classroom at their school and the interviews will be held after the school time.

**Confidentiality**

Any information or personal details gathered in the course of the study will remain secret. No individual will be identified by name in any publication of the results. All names will be replaced by pseudonyms; this will ensure that your son/daughter is not identifiable. If you agree I would like to quote some of your son/daughter's responses. This will also be done in a way to ensure that your son/daughter is not identifiable.

**Participation is Voluntary**

Please understand that your son/daughter's involvement in this study is voluntary and I respect his/her right to withdraw from the study at any time. Your son/daughter may discontinue the interview at any time without effect and your son/daughter does not need to provide any explanation if your son/daughter decides not to participate or withdraw at any time.

**Questions**

The interview questions will not be of a sensitive nature: rather they are general, aiming to enable your son/daughter to enhance my knowledge of the junior secondary students' interest in learning.

**Use of information**

I will use information from the interview as part of my doctoral thesis, which I expect to complete in December 2017. It is also intended that the information of this study will be published in journal articles, book chapter, and/or a book publication. Further, information of this study will be presented at research conferences.

At all time, I will safeguard your son/daughter's identity by presenting the information in a way that will not allow your son/daughter to be identified. Pseudonyms will be used in instances where participants' responses are directly quoted.

**Upsetting issues**

It is unlikely that this research will raise any personal or upsetting issues but if it does you may wish to contact Mr. K.P.N. Premasari, Deputy Director of Education, **Psycho-social Felicitation and Counselling Unit, Co-**

**curricular Activities, Guidance, Counselling, Social Integration and Peace Education Branch**, Ministry of Education, Sri Lanka at 0112784873-ext-1161

**Storage of information**

I will keep hardcopy recordings and notes of the interview in a locked cabinet at the researcher's office at the University of New England's School of Education. Any electronic data will be kept on a password protected computer in the same School. Only the research team will have access to the data.

**Disposal of information**

All the data collected in this research will be kept for a minimum of five years after successful submission of my thesis, after which it will be disposed of by deleting relevant computer files, and destroying or shredding hardcopy materials.

**Approval**

This project has been approved by the Human Research Ethics Committee of the University of New England (Approval No. HE15-233 valid from 20 October 2015 to 20 October 2016).

**Contact details**

Feel free to contact me with any questions about this research by email at [rperera4@une.edu.au](mailto:rperera4@une.edu.au) or by phone on +61267730659

You may also contact my supervisors. My Principal supervisor is Dr. Tanya Hathaway and she can be contacted at [thathawa@une.edu.au](mailto:thathawa@une.edu.au) or +61267733896 and my Co-supervisors names are Dr. Christopher Boyle and Prof. Neil Taylor. Dr. Christopher Boyle can be contacted at [cboyle7@une.edu.au](mailto:cboyle7@une.edu.au) or +61267732953 and Prof. Neil Taylor can be contacted at [atntaylor6@une.edu.au](mailto:atntaylor6@une.edu.au) or +61267735064.

**Complaints**

If you have any complaints concerning the manner in which this research is conducted, please contact;

Local Research Officer Sinhala medium at:

Mrs. D.V.M. De Silva

Lecturer

Faculty of Education

The Open University of Sri Lanka

Nawala, Nugegoda, Sri Lanka

Tel: +94112881389

Email: [dvsil@ou.ac.lk](mailto:dvsil@ou.ac.lk)

Local Research Officer Tamil medium at:

Mr.S.S.Zarookdeen

Senior Lecturer

Faculty of Education

The Open University of Sri Lanka

Nawala, Nugegoda, Sri Lanka

Tel: +94112881389

Email: [sszar@ou.ac.lk](mailto:sszar@ou.ac.lk)

OR

Research Ethics Officer at:

Research Services

University of New England

Armidale, NSW 2351

Tel: +61267733449 Fax: +61267733543

Email: [ethics@une.edu.au](mailto:ethics@une.edu.au)

Thank you for considering this request and I look forward to further contact with you.

regards,

Ruwandika Perera

## Information sheet for parents -Sinhala-medium



School of Education  
University of New England  
Armidale NSW 2351  
Australia  
Phone 02 6773 3716  
Fax 02 6773 2445  
Email education@une.edu.au



### දෙමව්පියන් සඳහා වන තොරතුරු පත්‍රිකාව

මම රුවන්දිකා පෙරේරා වන අතර, මෙම අධ්‍යයනය New England විශ්ව විද්‍යාලයේ, අධ්‍යාපන පාසලේ සිදුකරනු ලබන, මාගේ ආචාර්ය උපාධියේ එක් අංශයක් ලෙස ක්‍රියාත්මක කරනු ලැබේ. මාගේ අධ්‍යක්ෂකවරුන් වන්නේ, ආචාර්ය ටැන්සා හතවේ, ආචාර්ය ක්‍රිස්ටෝෆර් බොයිලේ සහ මහාචාර්ය හිල් ටේලර් යන මහත්ම මහත්මීන්ය.

පහත විස්තර කර ඇති මාගේ පර්යේෂණ ව්‍යාපෘතිය සඳහා සහභාගිවීමට මම ඔබගේ ප්‍රභාව / දුටුව ආරාධනා කරමි.

<p>පර්යේෂණ ව්‍යාපෘතිය</p>	<p>ශ්‍රී ලංකාවේ පහළ සමාජ - ආර්ථික දියුණුකවල කතිෂ්ඨ ද්විතියික ශිෂ්‍යයන්ගේ පාසල් හැරුණු කෙරෙහි පෙළඹීම සහ නියුක්තිකරණයෙහි ඇති බලපෑම.</p>
<p>මෙම අධ්‍යයනය කුමක්ද? එය සිදුකරන්නේ ඇයි?</p>	<p>මව්සින් මෙම අධ්‍යයනය, සිදු කිරීමට අපේක්ෂා කරන්නේ, කතිෂ්ඨ ද්විතියික ශිෂ්‍යයන් ඔවුන්ගේ ඉගෙනුම කෙරෙහි ඇති කැමැත්ත අඩුවීමට පාසල ආශ්‍රිත සාධකවල ඇති බලපෑම පරීක්ෂා කිරීම තුළින් ශිෂ්‍යයන් පාසලින් ඇද වැටීම වැළැක්වීම අරමුණු කරගෙනය. මෙම අධ්‍යයනය මගින් කතිෂ්ඨ-ද්විතියික ශිෂ්‍යයන් පාසලින් ලිලිඟිම වැළැක්වීමට ඔවුන්ගේ ඉගෙනුම කෙරෙහි බලපාන පාසල ආශ්‍රිත සාධක පරීක්ෂා කිරීම සහ පාසල් පාලකයන්ට ශිෂ්‍යයන් නැවත ඉගෙනුමෙහි නිරත කරවීම සහ ඔවුන්ට සහයවීම සඳහා තත්ත්ව නිර්මාණය කළ හැක්කේ කෙසේද යන්න අධ්‍යයනය කිරීම සිදු කරනු ලැබේ. මෙම අධ්‍යයනය මගින් ශ්‍රී ලංකාවේ දෙවන වර්ගයේ රජයේ පාසල්වල කතිෂ්ඨ- ද්විතියික අවධියේදී ශිෂ්‍ය ඉගෙනුම කෙරෙහි බලපාන පොදු සාධක විමර්ශනය, හඳුනාගැනීම, විශ්ලේෂණය සහ සන්සන්දනය කිරීම සිදු කරනු ලැබේ. අවසාන වශයෙන් මෙම අධ්‍යයනය මගින් කතිෂ්ඨ- ද්විතියික ශිෂ්‍යයන්ගේ ඉගෙනුම කෙරෙහි ඇති රැවිය සහ ඔවුන්ගේ අධ්‍යාපනය සාධනය වඩා දියුණුකිරීම සඳහා පාසල් පාලකයන් හට ශිෂ්‍යයන්ට සහයවීම සඳහා යෝජනා ඉදිරිපත් කිරීම සිදු කරනු ලැබේ</p>
<p>පර්යේෂණයේ අරමුණු</p>	<p>මෙම පර්යේෂණයෙන් ගවේෂණය කිරීමට අරමුණු කරන්නේ</p> <ol style="list-style-type: none"> <li>1) ශ්‍රී ලංකාවේ පහළ සමාජ ආර්ථික දියුණුකවල කතිෂ්ඨ-ද්විතියික ශිෂ්‍යයන්ගේ පෙළඹීමෙහි මට්ටම් මොනවා ද?</li> <li>2) එම පෙළඹීමෙහි මට්ටම ස්ත්‍රී පුරුෂ බව, ජන වර්ගය සහ දියුණුක අනුව වෙනස් වේ ද?</li> <li>3) ශිෂ්‍යයන්ගේ ඉගෙනුමට ඇති පෙළඹීම සහ නියුක්තිකරණය කෙරෙහි බලපාන පාසල ආශ්‍රිත සාධක මොනවා ද?</li> <li>4) ශිෂ්‍යයන්ගේ පෙළඹීම සහ නියුක්තිකරණය වැඩි දියුණු කිරීම සඳහා පාසල තුළදී කළ හැක්කේ මොනවා ද? යන්නය.</li> </ol>

සමීක්ෂණය

ඔබගේ පුතා/ දුව ලවා පුස්තාවලියක් පුරවා ගැනීමට මට අවශ්‍ය වී ඇත. මෙම පුස්තාවලිය දෙනු ලබන්නේ ඉගෙනීමට ඔබගේ පුතාගේ / දුවගේ ඇති කැමැත්ත ඔබගේ පුතා/ දුව ඉගෙනගත්තේ කෙසේ ද? ශිෂ්‍යයෙකු ලෙස ඔබගේ පුතා/ දුව ඒ ගැන සිතන ආකාරය පිළිබඳව පරීක්ෂා කිරීමටය. එය සම්පූර්ණ කිරීමට මිනිත්තු 30 ක පමණ කාලයක් ගතවේ. එය පිරවීමට පෙර ඔබගේ පුතා/ දුව හට සියලුම උපදෙස් ලබා දෙනු ලැබේ. එහි ඔබගේ පුතා/ දුව විසින් කිසිවක් ලිවීමට අවශ්‍ය නැත. ඔවුන් විසින් කළ යුත්තේ “√” සලකුණ යෙදීම පමණි එය පිරවීමට පෙර අතරතුරදී හෝ අවසානයේදී ඔබගේ පුතා/ දුව හට ගවඳුවක් වේ නම් ඔහුට/ ඇයට මා සමග කතාකිරීමේ හැකියාව ඇත.

සම්මුඛ සාකච්ඡා

මම ඔබගේ පුතා/ දුව සමග ඔහුගේ/ ඇයගේ පාසලේදී සම්මුඛ සාකච්ඡාවක් පැවැත්වීමට අදහස් කරමි. මෙය සඳහා දළ වශයෙන් පැය හයක පමණ කාලයක් ගතවේ. ඔබගේ අවසරය ඇතිව මව්පියන් සම්මුඛ සාකච්ඡාවේ ශ්‍රව්‍ය පටිගත කිරීමක් සිදු කරනු ලැබේ. මන්ද ඔබගේ පුතා/ දුව විසින් සපයනු ලබන තොරතුරු නැවත නිවැරදි මතකයට නැංවිය හැකි බැවිනි. සම්මුඛ සාකච්ඡාවෙන් අනතුරුවම එහි පිටපතක් ඔබට හෝ ඔබගේ පුතා/ දුවට ඔහුගේ/ ඇයගේ කැමැත්ත මත ලබාදෙනු ලැබේ. පුස්තාවලි සැසිය ඔබගේ පුතාගේ/ දුවගේ පන්ති කාමරයේ දී පවත්වනු ලබන අතර සම්මුඛ සාකච්ඡා පවත්වනු ලබන්නේ පාසල් වෙලාවෙන් අනතුරුවය.

<p>රහස්‍ය භාවය</p>	<p>මෙම අධ්‍යයනය සඳහා රැස්කරනු ලබන ඕනෑම තොරතුරක නැතහොත් පෞද්ගලික විස්තරවල රහස්‍යභාවය සුරකිනු ලැබේ. කිසිදු පර්යේෂණ ප්‍රතිඵල ප්‍රකාශනයක කිසිදු පුද්ගලයකු නමින් නළනාගැනීමේ හැකියාවක් නොමැත. සියලුම නම්, ආරාධි නම් මගින් ප්‍රකාශයට පත්කරනු ලබන අතර, මෙමගින් ඔබගේ පුතා / දුව නළනාගත නොහැකි බව තහවුරු වේ. ඔබ කැමති නම් පමණක් ඔබගේ පුතා / දුවගේ ප්‍රතිචාර කිහිපයක් උපුටා ගැනීමට ලක්වනු ඇත. එයද සිදුකරනු ලබන්නේ ඔබගේ පුතා / දුව නළනාගැනීමට නොහැකි බව තහවුරුවන ආකාරයෙනි.</p>
<p>ස්වේච්ඡා සහභාගිත්වය</p>	<p>මෙම අධ්‍යයනය සඳහා ඔබගේ පුතා / දුවගේ සහභාගිත්වය ස්වේච්ඡා එකකි. ඕනෑම අවස්ථාවක ඉන් ඉවත්වීමට ඔබගේ පුතාට / දුවට ඇති අයිතියට මම ගරු කරමි. එසේම කිසිදු බලපෑමකින් තොරව මෙම සම්මුඛ සාකච්ඡාවෙන් බැහැරවීමට ඔබගේ පුතාට / දුවට ඇති අයිතියට මම ගරු කරමි. එසේම කිසිදු බලපෑමකින් තොරව මෙම සම්මුඛ සාකච්ඡාවෙන් බැහැරවීමට ඔබගේ පුතාට / දුවට හැකියාවක් ඇත. ඔබගේ පුතා / දුව මෙම අධ්‍යයනය සඳහා සහභාගි නොවීමට අදහස් කරන්නේ නම් හෝ ඕනෑම අවස්ථාවක ඉන් ඉවත්වීමට අදහස් කරන්නේ නම් ඒ සඳහා කිසිදු කරුණු දැක්වීමක් අවශ්‍ය නැත.</p>
<p>ප්‍රශ්න</p>	<p>සම්මුඛ සාකච්ඡා ප්‍රශ්න සංවේදී ස්වභාවයෙන් යුක්ත නොවේ. ඒවා බොහෝදුරට සාමාන්‍ය ඒවා වේ. එමගින් කතික්ඛි ද්විතීයික ශිෂ්‍යයන්ගේ ඉගෙනුමට ඇති පෙළඹීම සහ නියුක්තිකරණය කෙරෙහි මා සතු දැනුම වර්ධනය කිරීමට ඔබට හැකියාව ලැබේ.</p>

<p>තොරතුරු භාවිතය</p>	<p>පුරුකාවලි සහ සම්මුඛ සාකච්ඡාවලියෙන් ලබා ගන්නා තොරතුරු මවිසින් 2017 දෙසැම්බර් මස නිම කිරීමට අපේක්ෂිත මගේ ආචාර්ය උපාධි විඛණ්ඩනයේ එක් අංශයක් ලෙස භාවිත කරනු ලැබේ. එසේම මෙම අධ්‍යයනයේ තොරතුරු ජ්‍යෙෂ්ඨ ලිපි, පොත් පටිවිච්චේද සහ / හෝ පොතක් ලෙස ප්‍රකාශනය කිරීමට අපේක්ෂා කරනු ලැබේ. තවදුරටත් මෙම අධ්‍යයනයේ තොරතුරු පර්යේෂණ සම්මන්ත්‍රණවලදී, ඉදිරිපත් කිරීමට අපේක්ෂා කරනු ලැබේ.</p> <p>ඔබගේ පුතා/ දුවගේ තොරතුරු ඉදිරිපත් කිරීමේ දී සැමවිටම ඔහු / ඇය හඳුනාගත නොහැකි වන ආකාරයට ඔහුගේ / ඇයගේ අනන්‍යතාවය ආරක්ෂා කරනු ලැබේ. ඔබගේ පුතා/ දුවගේ ප්‍රතිචාර කෙලින් ම උපුටා ගනු ලබන අවස්ථාවලදී ආරැඹි නාම භාවිතා කරනු ලැබේ.</p>
<p>සිත ව්‍යාකූල කරවන සුදු ගැටලු</p>	<p>මෙම අධ්‍යයනයෙන් පුද්ගලික හෝ සිත ව්‍යාකූල කරවන සුදු ගැටලු පැන නොනගිනු ඇත . නමුත් එවැනිනක් පැන නැගුනහොත් ඔබට කේ. පී. එන්. ජේෂ්වරත්න මහතා, නියෝජ්‍ය අධ්‍යාපන අධ්‍යක්ෂ, මහෝ සමාජ අභිනන්දන සහ උපදේශන ඒකකය, විෂය සමගාමී ක්‍රියාකාරකම් මාර්ගෝපදේශනය සහ උපදේශනය, සමාජ ඒකාබද්ධතා සහ නාම අධ්‍යාපන අංශය, අධ්‍යාපන අමාත්‍යාංශය, ශ්‍රී ලංකාව යන ලිපිනයට 0112784873 දිගුව 1161 ඇමතිමෙන් ඒ බව දැන්විය හැකිය.</p>

<p>තොරතුරු ගබඩාකරණය</p>	<p>පුද්ගලවලින් සහ සම්මුඛ සාකච්ඡාවේ ලිපිලේඛන වාර්තා සහ සටහන් New England විශ්ව විද්‍යාලයේ, අධ්‍යාපන පාසලේ ඇති පර්යේෂක කාර්යාලයේ වසන ලද අල්මාටියක තැන්පත් කරනු ලැබේ. සියලුම ඉලෙක්ට්‍රොනික දත්ත, එම පාසලේම මුරපදයක් (Password) මගින් ආරක්ෂා කරන ලද පරිගණකයක ගබඩා කරනු ලැබේ. පර්යේෂක කණ්ඩායමට පමණක් එම දත්තවලට ප්‍රවේශවීමේ හැකියාව ඇත.</p>
<p>තොරතුරු විනාශ කිරීම</p>	<p>මෙම පර්යේෂණය සඳහා එකතු කරනු ලබන සියලුම දත්ත මාගේ උපාධි නිබන්ධනය සාර්ථකව හාර දීමෙන් අනතුරුවම, අවම වශයෙන් අවුරුදු පහක් තබා ගන්නා අතර, අනතුරුව අදාළ පරිගණක දත්ත මකා දමනු ලබන අතර, ලිපි ලේඛන තීරු කොට ඉටා දමනු ලැබේ.</p>
<p>අනුමැතිය</p>	<p>මෙම ව්‍යාපෘතිය හැඳුණු බවටත්තා විශ්ව විද්‍යාලයේ මානව පර්යේෂණ ආචාරධර්ම කමිටුවේ අනුමැතිය ලබා ඇත. (අනුමැති අංකය HE15 - 233 වලංගු කාලය 2015 ඔක්තෝබර් 20 - 2016 ඔක්තෝබර් 20)</p>
<p>සම්බන්ධීකරණ තොරතුරු</p>	<p>ඔබට මෙම පර්යේෂණය පිළිබඳව ඇති ඕනෑම ප්‍රශ්නයක් පිළිබඳව මාට <a href="mailto:rperera4@unce.edu.au">rperera4@unce.edu.au</a> යන විද්‍යුත් ලිපිනයට හෝ +61267730659 ඇමරිකානු හෝ දැන්විය හැකිය.</p>

	<p>දේශීය පර්යේෂණ නිලධාරී- සිංහල මාධ්‍යය  ඩී.වී. එම්.උ. සිල්වා මහත්මිය, කවිකාවාර්ය, අධ්‍යාපන පීඨය,  ශ්‍රී ලංකා විවෘත විශ්ව විද්‍යාලය, නාවල, නුගේගොඩ,  ශ්‍රී ලංකාව.  දුරකථනය : ,94112881389</p> <p>විද්‍යුත් ලිපිනය : <a href="mailto:dvsil@ou.ac.lk">dvsil@ou.ac.lk</a>  දේශීය පර්යේෂණ නිලධාරී -දෙමළ මාධ්‍යය  එස්. එස්. සරාක්ඛීන් මහතා  ජ්‍යෙෂ්ඨ කවිකාවාර්ය  අධ්‍යාපන පීඨය  ශ්‍රී ලංකා විවෘත විශ්වවිද්‍යාලය  නාවල, නුගේගොඩ, ශ්‍රී ලංකාව  දුරකථනය : 094112881389  විද්‍යුත් ලිපිනය : <a href="mailto:sszar@ou.ac.lk">sszar@ou.ac.lk</a></p> <p>හෝ  පර්යේෂණ ආචාර ධර්ම නිලධාරී  පර්යේෂණ සේවා  New England විශ්වවිද්‍යාලය  ආම්ඩේල්, NSW 2351, ඕස්ට්‍රේලියාව  දුරකථනය : 061267733449  ෆැක්ස් : 061267733543  විද්‍යුත් ලිපිනය : <a href="mailto:ethics@une.edu.au">ethics@une.edu.au</a></p> <p>මෙම ඉල්ලීම සලකා බැලීම පිලිබඳව ස්තූතියන්ත වන අතර,  ඔබගේ සහයෝගය තවදුරටත් ලබා ගැනීමට අපේක්ෂා  කරමි.  ස්තූතියි.  රාවන්ද්‍රිකා පෙරේරා</p>
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## Information sheet for parents-Tamil-medium

 <p>University of New England</p>	<p>School of Education University of New England Armidale NSW 2351 Australia</p>	<p><b>INFORMATION SHEET</b> for <b>PARENTS</b></p>
	<p>Phone 02 6773 3716 Fax 02 6773 2445</p>	
	<p>Email education@une.edu.au</p>	

### பெற்றோருக்கான தகவற்படிவம்

எனது பெயர் குவந்திக்கா பெரேரா. நான் இங்கிலாந்தின் New England பல்கலைக்கழகத்தில் கலாநிதி பட்டப்படிப்பின் ஒரு பகுதியாக இந்த ஆய்வை நடத்துகின்றேன். எனது மேற்பார்வையாளர்கள் கலாநிதி. Tanya Hathaway, கலாநிதி. Christopher Boyle, பேராசிரியர். Neil Taylor ஆவர்.

கீழே விவரிக்கப்பட்டுள்ள என்னுடைய ஆய்வுச் செயற்றிட்டத்தில் பங்குபற்றும்படி உங்கள் மகன்/மகளை அழைக்க விரும்புகின்றேன்.

ஆய்வு செயற்றிட்டம்

இலங்கையில் சமூக பொருளாதாரக் குறைநிலை மாவட்டங்களில் தரம் விந்த்சியடையும் பாடசாலைகளில் கனிஷ்ட இடைநிலை மாணவர்களின் ஊக்கம் மற்றும் ஈடுபாட்டின் தாக்கம்

இந்த ஆய்வு எதற்காக?  
ஏன் அது நடத்தப்படுகின்றது?

கனிஷ்ட இடைநிலை மாணவர்கள், பாடசாலை தொடர்பான காரணிகளால் ஏன் அவர்களின் கற்றலில் ஆர்வம் குறைந்துள்ளனர் என்பதைப் பரிசீலிப்பதற்காக மாணவர் இடைவிலகும் நிலையை எதிர்கொள்வதற்காக ஒரு ஆய்வை நான் நடத்துகின்றேன் கனிஷ்ட இடைநிலை மாணவர்களின் கற்றலில் தாக்கம் செலுத்தும் பாடசாலை தொடர்பான காரணிகளின் தாக்கம் மற்றும் மாணவர்கள் பாடசாலை விட்டு விலகி முன்பே அங்களை மீள ஈடுபடச் செய்தல் ஆதரவு வழங்குதலில் பாடசாலைத் தலைவர்கள் எவ்வாறு ஒரு குழுவிலையை உருவாக்குகின்றார்கள் என்பனவற்றை இந்த ஆய்வு பரிசீலிக்கின்றது. இலங்கையில் வகை II அரசு பாடசாலைகளில் கனிஷ்ட இடைநிலைக் காலங்களில் நிகழும் கற்றலில் தாக்கம் செலுத்தும் பொதுக்கூறுகளை விளக்க இணக்காண்பதற்கு பதப்பாய்வு செய்வதற்கு ஒப்பீடுவதற்கு இவ்வாய்வு முனைகின்றது. இறுதியில், மாணவர்கள் கனிஷ்ட இடைநிலைக்கல்வியில் தங்கள் ஆர்வத்தையும் கல்விச் செயற்பாடுகளையும் அதிகரிக்கச் செய்வதில் பாடசாலைத் தலைவர்கள் மாணவர்களுக்கு ஆதரவு வழங்குவதற்குச் சிபாரிசுகளை இந்த ஆய்வு மேற்கொள்ளும்.

ஆய்வின் நோக்கம்

இந்த ஆய்வின் நோக்கங்களின் ஊடாகக் கண்டறியப்படவுள்ளனவாக  
ஆய்வு வினாக்கள்

1. இலங்கையில் சமூக பொருளாதார நிலை குறைவான மாவட்டங்களில் கனிஷ்ட இடைநிலை மாணவர்களிடையேள்ள ஊக்கம் மட்டங்கள் எவை?
2. ஊக்கம் மட்டங்கள் பால்தலை, இனத்தவம் மற்றும் மாவட்டங்களுக்கேற்ப வேறுபடுகின்றனவா?
3. பாடசாலை தொடர்பான காரணிகள் மாணவர்களின் ஊக்கம் மற்றும் ஈடுபாட்டில் தாக்கம் செலுத்துகின்றது?
4. பாடசாலைகளில் கற்றலில் மாணவர்களின் ஊக்கமையும் ஈடுபாட்டையும் மேம்படுத்த என்ன செய்யலாம்?

ஆய்வு

உங்கள் மகன்/மகள் ஒரு அளவாய்வை மேற்கொள்ள நான் விரும்புகின்றேன். உங்கள் மகன் / மகள் கற்றலில் ஆர்வத்தை பரிசீலிப்பதற்கும் உங்கள் மகன் / மகள் எவ்வாறு படிக்கிறார் என்பதையும், உங்கள் மகன் / மகள் ஒரு மாணவனாகத் தங்களைப் பற்றி எவ்வாறு நினைக்கின்றார் என்பதையும் இந்த ஆய்வு கூறுகின்றது. இதை நிறைவு செய்ய அண்ணளவாக 30 நிமிடங்கள் செல்லும் இந்த ஆய்வை நிரப்பத் தொடங்க முன்பு சகல அறிவுறுத்தல்களும் தரப்படும் அதில் உங்கள் மகன் / மகன் ஒன்று எழுதவேண்டிய தேவை இல்லை. உங்கள் மகன் / மகன் ஒரு அடையாளம் (✓) மட்டும் போட வேண்டும். ஆய்வின் முன்பு அல்லது ஆய்வின் பின்பு அல்லது ஆய்வின்போது உங்கள் மகன் / மகளிற்கு ஏதாவது சந்தேகம் இருப்பின் என்னுடன் கதைக்கமுடியும்.

நேர்காணல்

பாடசாலையில் உங்கள் மகன் / மகளுடன் ஒரு நேர்காணலை நேருக்கு நேர் நடத்த நான் விரும்புகின்றேன். நேர்காணலுக்கு அண்ணளவாக அரை

I certify that this record is an exact duplicate  
of the English version attached.

Head Dept of Educational & Cultural, Education  
Faculty of Education  
The Open University of Sri Lanka  
Nawala, Nugegoda

	<p>மனிதநியமம் எடுத்தும், உங்கள் அனுமதியுடன் உங்கள் நேர்காணலை நான் ஒலிப்பதிவு செய்வதனால் உங்கள் மகன் / மகள் வழங்கும் தகவலை அவர் விரும்பினால் மீளவும் கேட்க முடியும். ஒன்னொரு ஆய்வு அமர்வும் மகன் / மகனின் பாடசாலை வகுப்பறைகளில் நடைபெறும் நேர்காணலை பாடசாலை நேரம் முடிந்ததும் நடைபெறும்.</p>
நம்பகத்தன்மை	<p>ஆய்வீன்போது பெறப்பட்ட தகவல்களும் தனிப்பட்ட விவரங்களும் இரகசியமாகப் பேணப்படும். முடிவுகள் வெளியிடும்போது தனி நபர்களின் பெயர்கள் பயன்படுத்தப்படமாட்டாது. உங்கள் மகன் / மகனின் பெயருக்குப் பதிலாக புனைபெயர்களே பாவிக்கப்படும். உங்கள் பிள்ளைகளின் அடையாளத்தைத் தவிரக்கவே இந்த உடனடி முறை மேற்கொள்ளப்படுகின்றது.</p>
கயாதினமான பங்குபற்றல்	<p>இந்த ஆய்வில் உங்கள் மகன் / மகனின் கடுபாடு அவர்களின் கவனிப்புத்திறம்கூரியது. எந்தநேரத்திலும் அவர்கள் இந்த ஆய்விலிருந்து விலகிக்கொள்ள முடியும். இன்னொரு நேர்காணலின்போதும் எந்தநேரத்திலும் விலகிக்கொள்ள முடியும். எதுவித விளக்கங்களும் வழங்க வேண்டிய அவசியமில்லை.</p>
விளக்கங்கள்	<p>நேர்காணல் விளக்கங்கள் உணர்வுபூர்வத்தன்மையைக் கொண்டிருக்காது அவை பொதுவானவை. கனிஷ்ட இடைநிலைப்பிரிவு மாணவர்கள் கற்றலில் காட்டும் ஆர்வம் பற்றிய எதை அறிவை மேம்படுத்த உங்கள் மகன் / மகன் உதவும் வகையில் இது அமையும்.</p>
தகவல் பயன்படுத்தல்	<p>2017 டிசம்பர் மாதம் நான் நிறைவு செய்வதற்கு எதிர்பார்த்துள்ள எவது கலாநிதி பட்டத்திற்கான ஆய்வுக்கான ஒரு பகுதியாக நேர்காணலில் பெற்று தகவல்களை நான் பயன்படுத்துவேன். இத்தகவல்களை ஜேர்னல் கட்டுரைகள் நால் அத்தியாயங்கள் அல்லது நூலாக வெளியிடுவதற்கும் எதிர்பார்க்கப்படுகின்றது. மேலும் ஆய்வு தொடர்பான தகவல்கள் ஆய்வு மாநாடுகளில் முன்வைக்கப்படும்.</p>
குறும்பம் தரும் பிரச்சினைகள்	<p>முன்வைக்கும் தகவல்களின் ஊடாக உங்கள் மகன்/மகனின் அடையாளத்தை அறியமுடியாதவாறு நான் பாதுகாப்பேன். பங்குபற்றுனரின் தலைக்கால்கள் நேரடியாக மேற்கோள் காட்டப்படின் புனைபெயர் பயன்படுத்தப்படும்.</p> <p>இந்த ஆய்வு ஏதாவது தனிப்பட்ட பிரச்சினைகளை ஏற்படுத்தும் என்றால் நீங்கள் பின்வரும் அலுவலருடன் தொடர்பை ஏற்படுத்தலாம். திரு. K. P. N. பிரேமசிரி, பிரதி கல்விப் பணிப்பாளர், உள்சமூக வசதியளித்தல் மற்றும் ஆலோசனை வழங்கல் பிரிவு, இணைக்கலைத்திட்டச் செயற்பாடுகள், வழிகாட்டல் மற்றும் ஆலோசனை சேவை, சமூக ஒன்றிணைப்பு மற்றும் சமாதானக் கல்விப் பிரிவு, கல்வி அமைச்சு, இலங்கை என்ற முகவரியில் அல்லது 0112784873 நம்பு 1161 என்னும் தொலைபேசியுடன் தொடர்பு கொண்டு பெற்றுக்கொள்ளலாம்.</p>
தகவல்களைக்	
காண்கியப்படுத்தல்	<p>நான் இங்கிலாத்தின் New England பல்கலைக்கழகத்தில் School of Education பிரிவில் அமைந்துள்ள எவது ஆய்வுக்குரிய அலுவலகத்தில் எழுத்து வடிவிலான ஆய்வுத் தகவல்கள் மற்றும் குறிப்புக்களை பாதுகாப்பாக அனுமதியில் வைக்கவுள்ளேன். இலத்திரனியல் தகவல்களை எவது கடவுச் சொல்லுடனான (Password) கணினியில் வைத்திருப்பேன். ஆய்வுக் குழுவினர் மாதிரம் இத்தகவல்களைக் கையாள முடியும்.</p>
ஆய்வுக்குரிய	
தகவல்களை அழித்தல்	<p>இந்த ஆய்வுக்காகச் சேகரிக்கப்பட்ட அனைத்துத் தகவல்களும் எவது ஆய்வுக்களை சமர்ப்பித்ததன் பின்னர் குறைந்தபட்சம் ஐந்து (05) வருடங்கள் பாதுகாப்பில் வைத்திருப்பேன். அதன் பின்னர் கணினியில் சேவைப்படுத்தப்பட்டு சேமிக்கப்பட்ட தகவல்கள் மற்றும் எழுத்து வடிவத் தகவல்கள் அழிக்கப்படும்.</p>

I certify that this record is an exact duplicate of the English version attached.

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Faculty of Education  
The Open University of Sri Lanka  
Nawala, Nugegoda

அனுமதி இவ்வாய்வுச் செயற்றிட்டம் New England பல்கலைக்கழகத்தின் 'மான்லிவியல் ஆய்வுக்கான ஒழுக்கக் குழு' அனுமதிக்கப்பட்டதன் பின்னரே மேற்கொள்ளப்படுகின்றது.

அங்கீகரித்தல் New England பல்கலைக்கழக மனித ஆய்வு ஒழுங்குக்குழு மூலம் இச்செயற்றிட்டம் அங்கீகரிக்கப்பட்டது.

தொடர்பு கொள்வதற்கான

விபரங்கள்

இந்த ஆய்வுக்கான நேர்காணல் வினாக்கள் பற்றி நீங்கள் மிகவும் சுதந்திரமாக எந்த நேரத்திலும் rperera4@une.edu.au எனும் மின்னஞ்சல் முகவர்க்கு மின்னஞ்சல் செய்வதன் மூலமோ +61267730659 எனும் தொலைபேசி இலக்கத்துடனோ தொடர்புகளைப் பேணலாம். மேலும் ஆய்வு தொடர்பான மேலதிக தகவல்களை அறிந்து கொள்வதற்காக என்னுடைய மேற்பார்வையாளர்களுடனும் தொடர்புகளை நீங்கள் பேணலாம். எனது பிரதான மேற்பார்வையாளர் கலாநிதி. Tanya Hathaway என்பவரின் மின்னஞ்சல் thathawa@une.edu.au ஆகும். அவரது தொலைபேசி இலக்கம் +61267733896 ஆகும். மேலும் எனது இணை மேற்பார்வையாளர்கள் கலாநிதி. Christopher Boyle, (cboyle7@une.edu.au அல்லது +61267732953) பேராசிரியர். Neil Taylor (ntaylor6@une.edu.au அல்லது +61267735064) போன்றோருடனும் தொடர்பு கொண்டு விபரங்களை அறிந்து கொள்ளலாம்.

முறைப்பாடுகள்

இந்த ஆய்வின் மேற்கொள்ளும் வழிமுறைகள் தொடர்பாக ஏதாவது முறைப்பாடுகளை நீங்கள் தெரிவிக்க விரும்பினால் பின்வரும் நபர்களிடம் தெரிவிக்கலாம்.

சிங்கள மொழிமூல உள்நாட்டு ஆய்வு அதிகாரி

திருமதி. D. V. M. ie சில்வா  
விரிவுரையாளர்  
கல்விப்பீடம்  
இலங்கைத் திறந்த பல்கலைக்கழகம்,  
நாவல், நுகேக்கோட, இலங்கை  
தொலைபேசி: +94112881389  
மின்னஞ்சல்: dusil@ou.ac.lk

தமிழ் மொழிமூல உள்நாட்டு ஆய்வு அதிகாரி

திரு. S. S. சஞ்சீவன்  
சிரேஷ்ட விரிவுரையாளர்  
கல்விப்பீடம்  
இலங்கைத் திறந்த பல்கலைக்கழகம்,  
நாவல், நுகேக்கோட, இலங்கை  
தொலைபேசி: +94112881389  
மின்னஞ்சல்: ssszar@ou.ac.lk

அல்லது

ஆய்வு ஒழுக்கங்களுக்கான அதிகாரி  
ஆய்வுகள் சேவை  
New England பல்கலைக்கழகம்,  
Armidal, NSW 2351  
தொலைபேசி: +61267733449 Fax: +61267733543  
மின்னஞ்சல்: ethics@une.edu.au

நீங்கள் இந்த ஆய்வுக்கான நேர்காணலில் பங்குபற்றியமைக்காக நன்றி தெரிவிப்பதோடு தேவையானபோது தொடர்ச்சியான தொடர்புகளை உங்களோடு பேணாதற்கு முயற்சிக்கின்றேன்.

இப்படிக்கு  
ருவாந்திக்கா பெரேரா.

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Faculty of Education  
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Nawala, Nugegoda

## APPENDIX W: Consent forms for participants in all three media

### Consent form for participants- English-medium

**CONSENT FORM**  
**for PARTICIPANTS**  
**(Teachers and principals)**

**Research Project:** *The impact of junior secondary students' motivation and engagement on school attrition in low socio-economic districts in Sri Lanka*

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I, ....., have read the information contained in the Information Sheet for Participants and any questions I have asked have been answered to my satisfaction. Yes/No

I agree to participate in this activity, realising that I may withdraw at any time. Yes/No

I agree that research data gathered for the study may be published using a pseudonym. Yes/No

I agree that I may be quoted using a pseudonym. Yes/No

I agree to the interview being audio recorded and transcribed. Yes/No

I would like to receive a copy of the transcription of the interview. Yes/No

I am older than 18 years of age. Yes/No

.....  
Teacher/principal (Participant) Date

.....  
Researcher Date

**Consent form for participants- Sinhala-medium**

**CONSENT FORM  
for  
PARTICIPANTS (TEACHERS and PRINCIPALS)**

සහභාගී වන්නන් සඳහා වන අනුමැති පත්‍රය.

පර්යේෂණ ව්‍යාපෘතිය : ශ්‍රී ලංකාවේ පහළ සමාජ - ආර්ථික දැක්වුම්කවල කණිෂ්ඨ ද්විතියික ශිෂ්‍යයන්ගේ පසුපස හැරී ගිය කෙරෙහි ප්‍රවේශිත සහ නියුක්තිකරණයෙහි ඇති බලපෑම

..... නම වන මම,

සහභාගීවන්නන් සඳහා වන තොරතුරු පත්‍රිකාව කියවූ අතර, අසනු ලබන ඕනෑම ප්‍රශ්නයකට මාගේ කැමැත්ත අනුව පිලිතුරු ලබා දෙමි. - ඔව්/නැත

මම මා හට ඕනෑම අවස්ථාවක මින් ඉවත් වීමේ හැකියාව ඇති බව අවබෝධ කර ගෙන මෙම කාර්යයට සහභාගී වීමට එකඟ වෙමි. - ඔව්/නැත

මම මෙම අධ්‍යයනය සඳහා එකතු කරනු ලබන පර්යේෂණ දත්ත ආරාධි නමකින් ප්‍රකාශනය විය හැකි බව දන්නා බවට එකඟ වෙමි. - ඔව්/නැත

මම මාගේ ප්‍රකාශ ආරාධි නමකින් උපුටා ගැනීමට ලක් විය හැකි බව දන්නා බවට එකඟ වෙමි. - ඔව්/නැත

මම සම්මුඛ සාකච්ඡාව යුවස පටිගත කිරීමට සහ පිටපත් කිරීමට ලක් වන බව දන්නා බවට එකඟ වෙමි. - ඔව්/නැත

මම සම්මුඛ සාකච්ඡාවේ පිටපතක් ලබා ගැනීමට කැමැත්ත ප්‍රකාශ කරමි. - ඔව්/නැත

මම අවුරුදු 18 ට වඩා වැඩි අයෙක් වෙමි. - ඔව්/නැත

.....  
සහභාගී වන්නා දිනය

.....  
පර්යේෂක දිනය

## Consent form for participants- Tamil-medium

**CONSENT FORM**  
for  
**PARTICIPANTS (TEACHERS and PRINCIPALS)**

பங்குபற்றுகிறவர்களிடம்  
பெற்றோர்களிடம் தகவல் அளிப்பதற்கான சம்மதத்தினைப்  
பெறுவதற்கான படிவம்  
(ஆசிரியர்கள் மற்றும் அதிபர்கள்)

ஆய்வுச் செயற்றிட்டம்: இலங்கையின் தாழ்ந்த சமூக பொருளாதார மாவட்டங்களில் கனிஷ்ட இடைநிலை மாணவர்களைப் பாடசாலைகளில் நிலைத்திருக்கச் செய்வதில் அரைகளுக்கான ஊக்குவித்தல் மற்றும் சடுபாட்டின் தாக்கம்

"நான்" என்பதைத் தொடர்ந்தவருகின்ற கீழ்க்கண்ட இடத்தில் உங்கள் பெயரை எழுதவும். பின்னர் வழங்கப்பட்டுள்ள கூற்றுகளை வாசித்து ஆம் / இல்லை என்றனறு விடைகளை அளிக்கவும்.

.....ஆகிய நான் பெற்றோர்களுக்கான தகவல் அளிக்கும் படிவத்தினை வாசித்து அதிலுள்ள தகவல்களை அறிந்து கொண்டதோடு எனது சந்தேகங்களை தீவிரத்தி் செய்து கொள்வதற்காகவும் எனது திருப்திக்காகவும் வினாக்களை வினவி பதிலைப் பெற்றுக் கொள்ளமுடியும் என்பதையும் அறிந்து கொண்டுள்ளேன் ஆம் / இல்லை

நான் இந்த செயற்பாட்டில் பங்குபற்றும்போது எந்தவொரு சந்தர்ப்பத்திலும் விவகார செல்லணம் என உடன்படுகின்றேன். ஆம் / இல்லை

இந்த ஆய்வுக்காகச் சேகரிக்கப்படும் தகவல்கள் ஆய்வு அறிக்கையில் புனைபெயருடன் வெளியிடப்படும். ஆம் / இல்லை

ஆய்வுக்காக வழங்கும் தகவல்களைப் புனைபெயரைப் பயன்படுத்தி வெளியிடச் சம்மதிக்கின்றேன் ஆம் / இல்லை

நேர்முகக்காணும்போது வீடுபாப்பதிவு மற்றும் குறிப்புகளை எழுதிக்கொள்வதற்கு சம்மதிக்கின்றேன் ஆம் / இல்லை

நான் நேர்காணல் பற்றிய குறிப்புகளின் பிரதியொன்றினைப் பெற்றுக்கொள்ள விரும்புகின்றேன் ஆம் / இல்லை

எனது வயது 18 இலும் கூடியது. ஆம் / இல்லை

.....  
மாணவர் திகதி

.....  
ஆய்வாளர் திகதி

I certify that this record is an exact duplicate of the English version attached.

Head Dept. of Secondary & Tertiary Education  
Faculty of Education  
The Open University of Sri Lanka  
Nawala, Nugegoda

## APPENDIX X: Assent form for children in all three media

### Assent form for children-English- medium

**ASSENT FORM**  
**for CHILDREN**

**Research Project: The impact of junior secondary students' motivation and engagement on school attrition in low socio-economic districts in Sri Lanka**

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*Please write your name after 'I,' and circle the yes/no answer you want.*

I, ....., have read the Information Sheet for Students and any questions I asked have been answered and I understand them. Yes/No

I agree to take part in this work Yes/No

I know that I can change my mind at any time. Yes/No

I agree that any work taken and anything we talk about will be written about using an invented name. Yes/No

I agree to the interview being audio recorded and transcribed. Yes/No

.....  
Student

.....  
Date

.....  
Researcher

.....  
Date

**Assent form for children-Sinhala-medium**

**ASSENT FORM for  
CHILDREN**

ළමුන් සහ යොවුන්යන් සඳහා වන අනුමැති පත්‍රය.

**පර්යේෂණ ව්‍යාපෘතිය:** ශ්‍රී ලංකාවේ පහල සමාජ - ආර්ථික දුස්ක්‍රීක්කවල කහිණ්ඩ ද්විතියික ශිෂ්‍යයන්ගේ පසල් හරා යාම කෙරෙහි පෙළඹීම සහ නියුක්තිකරණයෙහි ඇති බලපෑම

කරුණාකර ඔබගේ නම මම යන්නට පසුව ලියන්න. ඔබට අවශ්‍ය ඔව් / නැත යන පිළිතුර රඳුම් කරන්න.

මම.....ශිෂ්‍යයන් සඳහා වන උපදෙස් පත්‍රිකාව කියවුවෙමි. - ඔව්/නැත  
මගේ අසනු ලබන ඕනෑම ප්‍රශ්නයකට පිළිතුරු සපයන අතර, ඒවා අවබෝධ කර ගත් බව ප්‍රකාශ කරමි.

මෙම කාර්යයේ කොටස් කරුවකු වීමට මම එකඟ වෙමි. - ඔව්/නැත

මගේ අදහස ඕනෑම වෙලාවක වෙනස් කළ හැකි බව මම දනිමි. - ඔව්/නැත

මා විසින් සිදු කරනු ලබන ඕනෑම කාර්යයක් සහ සාකච්ඡා කරනු ලබන - ඔව්/නැත  
ඕනෑම දෙයක් වෙනත් නමක් භාවිතා කරමින් ලිවීමට මම එකඟතාව පළ කරමි.

සම්මුඛ සාකච්ඡාව,පවිගත කිරීමට සහ පිටපත් කිරීමට මම එකඟතාව පළ කරමි. - ඔව්/නැත

..... ශිෂ්‍යයා/ ශිෂ්‍යයාව	..... දිනය
..... පර්යේෂක	..... දිනය

## Assent form for children-Tamil-medium

### ASSENT FORM for CHILDREN

#### மாணவர்களின் சம்மதம் பெறுவதற்கான படிவம்

ஆய்வுச் செயற்றிட்டம்: இலங்கையின் நாழ்ந்த சமூக பொருளாதார மாவட்டங்களில் கனிஷ்ட இடைநிலை மாணவர்களைப் பாடசாலைகளில் நிலைத்திருக்கச் செய்வதில் அவர்களுக்கான ஊக்குவித்தல் மற்றும் ஈடுபாட்டின் தாக்கம்

“நான்”என்பதைத் தொடர்ந்து வருகின்ற கீழ்க்கட்ட இடத்தில் உங்கள் பெயரை எழுதவும். பின்னர் வழங்கப்பட்டுள்ள கூற்றுகளை வாசித்து ஆம் / இல்லை என்றவாறு விடைகளை அளிக்கவும்.

நான் ..... மாணவர்களுக்கான படிவத்தில் வாசித்து நான் கேட்ட வினாக்களுக்கு பதில்கள் கிடைக்கப்பெற்றதோடு அன்றையப் பூணாமக விளங்கிக் கொண்டேன்.

நான் இந்த வேலையில் ஈடுபடுவதற்கு உடன்படுகின்றேன். ஆம் / இல்லை

எனது மனதை எந்த நேரத்திலும் என்னால் மாற்றிக் கொள்ளமுடியும் என்பதை நான் அறிந்துள்ளேன். ஆம் / இல்லை

இந்த ஆய்வு தொடர்பான எந்தவொரு வேலை மற்றும் கலந்துரையாடப்படும் விடயங்கள் புணையெயரில் எழுதப்படுவதற்குச் சம்மதிக்கின்றேன். ஆம் / இல்லை

நான் மேற்படி நேர்காணலுக்குட்படும்போது அதனை வீடியோ மூலம் பதிவு செய்து கொள்வதற்கும் குறிப்புகளை எடுத்துக்கொள்வதற்கும் உடன்படுகின்றேன். ஆம் / இல்லை

.....  
மாணவர் திகதி

.....  
ஆய்வாளர் திகதி

I certify that this record is an exact duplicate  
of the English version attached.

Head Dept. of Secondary & Tertiary Education  
Faculty of Education  
The Open University of Sri Lanka  
Nawala, Nugegoda



## APPENDIX Y: Parents' consent form for children in all three media

### Parents' consent form for children-English-medium

# PARENT CONSENT FORM

## For CHILDREN

**Research Project: The impact of junior secondary students' motivation and engagement on school attrition in low socio-economic districts in Sri Lanka**

---

I, .....,Parent, Guardian or Carer of  
.....have read the Information Sheet for Children and I give permission  
for my son/daughter to participate in this study.

Yes/No

I agree my son/daughter to take part in this work.

Yes/No

I know that my son/daughter can change his/her mind at any time.

Yes/No

I agree that any work taken and anything my son/daughter talk about will be written  
about using an invented name.

Yes/No

I agree that my son/daughter interview being audio recorded and transcribed.

Yes/No

.....  
Parent, Guardian or Carer

.....  
Date

.....  
Researcher

.....  
Date

**Parents' consent form for children-Sinhala-medium**

Parents' consent form for children-Tamil-medium

**PARENT CONSENT FORM  
for CHILDREN**

**ලුමුත් වෙනුවෙන් දෙමව්පියන් සඳහා වන අනුමැති පත්‍රය**

පර්යේෂණ ව්‍යාපෘතිය : ශ්‍රී ලංකාවේ පහළ සමාජ ආර්ථික දුස්ක්‍රීක්කවල කණිෂ්ඨ ද්විතියික ශිෂ්‍යයන්ගේ පාසල් හැරියාම කෙරෙහි පෙළඹීම සහ නියුක්තිකරණයෙහි ඇති බලපෑම

..... නම වන මම ..... ගේ  
මව/පියා/භාරකරු/රැකබලා ගන්නා අය වන අතර ලුමුත් සඳහා වන තොරතුරු පත්‍රිකාව කියවුවේම්, මාගේ පුතා/ දියණියට මෙම අධ්‍යයනය සඳහා සහභාගි වීමට අවසරය ලබා දෙමි. ඔව්/ නැත

මම මාගේ පුතා/ දියණිය මෙම අධ්‍යයනයේ කොටස්කරුවෙකු කිරීමට එකඟතාවය පළ කරමි. ඔව්/ නැත

මම මාගේ පුතා/ දියණියගේ අදහස ඕනෑම මොහොතක වෙනස්කළ හැකිබව දැනිමි. ඔව්/ නැත

මම මාගේ පුතා/ දියණිය විසින් සිදු කරනු ලබන ඕනෑම කාර්යයක් සහ සාකච්ඡා කරනු ලබන ඕනෑම දෙයක් වෙනත් නමක් භාවිතා කරමින් ලිවීමට එකඟතාව පළ කරමි. ඔව්/ නැත

මම මාගේ පුතා/ දියණියගේ සම්මුඛ සාකච්ඡාව පටිගත කිරීමට සහ පිටපත් කිරීමට එකඟතාව පළ කරමි. ඔව්/ නැත

..... මව/ පියා / රැකබලාගන්නා	..... දිනය
..... පර්යේෂක	..... දිනය

**PARENT CONSENT FORM  
for CHILDREN**

**பிள்ளைகளிடம் தகவல் பெறுவதற்காக பெற்றோரின் சம்மதத்தினைப்  
பெறுவதற்கான படிவம்**

ஆய்வுச் செயற்றிட்டம்: இலங்கையின் தாழ்த்த சமூகபொருளாதார மாவட்டங்களில் கவிஷ்ட இடைநிலை மாணவர்களைப் பாடசாலைகளில் நிலைத்திருக்கச் செய்வதில் அவர்களுக்கான ஊக்குவித்தல் மற்றும் #பாடட்டின் தாக்கம்

"நான்" என்பதைத் தொடர்ந்து வருகின்ற கீழ்க் இடத்தில் உங்கள் பெயரை எழுதவும். பின்னர் வழங்கப்பட்டுள்ள கூற்றுக்களை வாசித்து ஆம் / இல்லை என்றவாறு விடைகளை அளிக்கவும்.

.....பெற்றோர்(பாதுகாலை) ஆகிய நான் இந்த ஆய்வில் பிள்ளைகள் தொடர்பான தகவல் படிவத்தினை வாசித்து விளங்கிக் கொண்டதோடு எனது மகனை/மகள்களை இந்த ஆய்விற்கான தகவல்களை அளிப்பதற்காக அனுமதிக்கின்றேன்.

ஆம் / இல்லை

நான் எனது மகன்/மகள் இந்த ஆய்வில் பங்குபற்றுவதற்கு சம்மதிக்கின்றேன்.

ஆம் / இல்லை

நான் எனது மகன் /மகள் தகவல் அளிக்கும் எந்தவொரு சத்தப்பத்திலும் தனது மனதை மாற்றிக்கொள்ளலாம் என்பதை அறிந்து கொண்டுள்ளேன்.

ஆம் / இல்லை

எனது மகன் /மகள் வழங்கும் எந்தவொரு தகவல் மற்றும் விடயங்கள் புனை பெயர்களுடனேயே இன்னாய்வில் பயன்படுத்தப்படும் என்பதை அறிந்துள்ளேன்.

ஆம் / இல்லை

எனது மகன் /மகளின் தேர்காணல் விடியோமற்றும் எழுத்து மூலம் பதிவுசெய்யப்பட உள்ளது என்பதை நான் அறிந்துள்ளேன்.

ஆம் / இல்லை

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மாணவர்

.....  
திகதி

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ஆய்வாளர்

.....  
திகதி

*I certify that this record is an exact duplicate  
of the English version attached.*

Head Dept. of Secondary & Tertiary Education  
Faculty of Education  
The Open University of Sri Lanka  
Nawala, Nugegoda

