

## **Chapter 1: Overview of the Study**

### *1.1 Introduction*

This chapter begins by outlining my motivation for undertaking the research for this thesis and by providing an overview of that research. The second part of the chapter discusses the context, nature, and scope of the study, as well as specifying the research questions guiding the study and the significance of those questions. Finally the chapter defines key concepts and terms, and discusses the limitations of the research.

### *1.2 Background*

Education is generally accepted as a basic human right and a fundamental pre-requisite for the sound economic development of countries. Fiji has come to a critical stage in its social development where education is perceived by many Fijians as an instrument to promote the welfare of the present population as well as establishing the foundation to shape the lives of the future generations (Pene, Tavola, & Croghan, 2000). Following recent political turmoil in Fiji, increasing the level of education of the population has become a priority; it is seen as an indispensable means to help Fiji attain the ideals of peace and understanding, which will lead towards a renewed commitment to national unity, social cohesion and political stability (Ministry of Education, 2000).

Fiji has also adopted the United Nation's Millennium Development Goals (MDG). Goal number two of the MDG targets to "achieve universal primary education" (United Nations, 2010). Education for All (EFA), which is an international initiative ensures the importance of education in achieving the MDG (United Nations, 2010). In recognising education as the cornerstone of social and economic development, the Fijian Ministry of Education (MOE) has started upgrading many rural and remote schools by providing them

with the teaching resources to impart basic education to the children living in the areas in which those schools operate. *The People's Charter for Change, Peace and Progress* (Government of the Republic of Fiji, 2008) is an initiative of the present Government to build a better Fiji for all people. The *Charter* introduces a system for the distribution of education grants that “specifically recognises and is based on the disadvantage of schools and ensures improved overall quality of teaching and learning through better trained educators” (Government of the Republic of Fiji, 2008, p. 36).

Most of the beneficiaries of the *Charter* initiative are rural and remote schools. Many of these are multi-class (MC) schools where children from several classes are taught together by a single teacher. These schools are often disadvantaged because of their remoteness and lack of resources. In order to improve the quality of teachers for such schools, the Teachers' College, where much of the research for this thesis was conducted, has been upgraded and has become part of the Fiji National University (FNU) (Government of the Republic of the Fiji, 2009a). It is a reasonable assumption that better facilities in schools and the emphasis on improved teacher education, especially in the field of MC teaching, will in part contribute to long term peace and progress in the country. However, we do not know if this will be the case as Fiji has gone through four coups in a period of about twenty years.

The Teachers College has a MC program consisting of a theoretical and a practical component. The theoretical component, known as the MC Unit, consists of lectures, workshops and tutorials. It uses a Course Book known as *DPE 230 Facilitating Teaching in the Multi-class Classrooms* as the main text. The other feature of the MC program is a practicum that requires all pre-service teachers to teach in MC situations; a posting for six weeks to a rural and remote school with a MC teaching condition.

Practicum components (including the MC practicum) developed by the Teachers College are organised around three units offered in different semesters. Each of the units

focuses on the development of specific sets of beginning teacher attributes and competencies. Together they form a developmental learning continuum of professional knowledge, skills and attitudes for pre-service teachers. Each of the units is taught in a way that integrates and articulates the learning and teaching of professional knowledge, skills and attitudes in college classrooms, and urban and rural practice teaching schools.

A unit, together with the associated practicum, is called a program, for example the multi-class program associated with DPE230 (see Table 1.1). Altogether there are four units offered by the College's School of Education. Three of the units have a practicum component as shown in Table 1.1.

Table 1.1  
*Units offered by the School of Education in Dip Ed (Primary)* (Bingham & Waisale, 2005, p. 5)

Year	First semester units	Second semester units
1	DPE110 Child Growth & Development (18 weeks)	DPE120 Teaching & Learning in the Primary School. 4 weeks – Home based Practicum (18 weeks program)
2	DPE230 Facilitating Learning in the Multi-Class Classrooms 6 weeks of Rural/Multi-class practicum (17 weeks program)	DPE240 The Inclusive Classroom 6 weeks of MC School based Practicum (17 weeks program)

The MC unit provides pre-service teachers with an understanding of the principles and issues of MC teaching. It incorporates aspects such as theories and models of curriculum development, design and implementation as they concern MC situations. In addition, students acquire skills in the preparation and process of developing sound curriculum plans, and the interpretation of curriculum prescriptions in a MC classroom setting. The unit aims to provide opportunities for students to develop and apply the necessary strategies and skills for teaching in MC schools. It also addresses other major issues and challenges of teaching in a MC

setting such as teaching strategies, time management skills, designing authentic assessment tasks, and addressing the issues of integration and differentiation. However, the efficacy of this MC program (the unit plus the practicum) is not known.

### *1.3 Research Rationale*

Worldwide the history and emergence of MC teaching within primary schools is long and complex. “Multi-class” (MC) which is the term used in Fiji is a synonym for “multi-grade” or “mixed grade”. A MC is where a teacher takes charge of more than one class at a time. MC teaching has existed and will remain in many developing and developed countries for some time to come (Little, 2007). Generally, MC schools have smaller student populations and endeavour to offer basic education to children in, especially, rural and remote areas. The teaching skills required in MC schools are, arguably, more complex than those required in straight-class schools since the diversity of learners is generally greater. A teacher in a MC situation is charged with simultaneously teaching different curricula depending on the number of classes. The issue of teacher education to meet the demands of MC teaching has attracted some attention and, some writers have noted, preparation of teachers for MC teaching is often extremely inadequate (see e.g., Ninnes, Pridmore, Maxwell, & Meyers, 2006; Pridmore, 2006; Vithanapathirana, 2010; Yembuu, 2006).

While there is a general assumption that teachers are well educated and experienced to teach, “the reality in many countries is that untrained teachers have to deal with mixed classes” (Juvane, 2005, pp. 4-5). Teachers mostly get trained in straight class pedagogies. Maxwell (2008), for example, is concerned about the lack of teacher education in the area of MC teaching in Africa. He states that, in Zambia, about one third of all school children are being taught by untrained teachers. Similarly, despite the high prevalence of MC teaching in Nepal, a model of straight class (mono-grade) teaching dominates the structure of their

education system. Consequently multi-grade teachers “struggle to teach in the gap between their own multi-grade reality and the universal mono-grade norm – not knowing what to do” (Suzuki, 2007, p. 94). In Nepal teachers do not go through any training in multi-grade teaching during their pre-service education programs and yet they are found teaching in multi-grade situations (Suzuki, 2007). Fiji faced a similar situation until the MC pre-service program was introduced in 2005.

There are many teacher education institutions in the world that prepare primary school teachers to meet the demands of the teaching profession. However very few teacher education institutions offer education in dealing with MC teaching. For example, in Peru MC teaching is widespread and serves a large segment of the population but “no consistent pre- or in-service training is offered to teachers” (Ames, 2007, p. 47). Cornish (2006) echoes the importance of preparing teachers to meet the challenges of teaching in MC situations. Accordingly, a well-known advocate of multi-grade teaching suggests that:

For children to learn effectively in multi-grade environments teachers need to be well trained, well resourced and hold positive attitudes to multi-grade teaching. However, many teachers in multi-grade environments are untrained or trained in mono-grade pedagogy (Little, 2007, p. 7).

The research for this thesis investigated the preparation of teachers for MC teaching in primary school contexts in Fiji. I addressed this issue because there has been a dearth of previous research in this area. Moreover, there has been no research into trainees’ perceptions of MC training where this has been provided.

Although studies in MC teacher education have examined the importance of in-service training (Higgins, 2006; Hussain, 2006; Yembuu, 2006), this issue is not much dealt with in this study because there is no in-service program in Fiji. The prime focus of this research was

to develop an understanding of pre-service teachers' experiences of their MC preparation program particularly in preparing them for the multi-class practicum. This is possible because in Fiji, as mentioned previously, there is a specific program which prepares primary teachers for teaching in MC situations, which uses the practicum as a mechanism for part of that training.

Some authors (Anderson & Burns, 1989; Barry & King, 1998) have generally highlighted a number of concerns faced by beginning teachers, such as reality shock, isolation, classroom discipline and adjusting to the demands of the teaching profession. However none of the authors specifically examined the concerns of pre-service teachers undertaking a MC preparation program. This research is, therefore, unique, because it explores the concerns and expectations of pre-service teachers as they progress through a MC preparation program. The analytical focus on the pre-service teachers' perceptions of the various aspects of the MC program provides valuable information towards establishing the effectiveness of the MC preparation program.

This research is framed by my own educational journey and presents a comprehensive body of knowledge regarding the perceptions of pre-service teachers, progressing through the different phases of a MC preparation program. It is important to understand the concerns and the expectations of pre-service teachers prior to undertaking a MC program and the extent to which the program addresses these concerns as this feedback can form the basis of future inputs to improve the program.

#### *1.4 Research Questions*

The research questions that informed this study were both contextualised and conceptualised through the analysis of literature investigating the pedagogical principles and teacher education programs in the field of multi-class teaching (see Chapter 2).

Given the rationale, this study was guided by the following overarching question:

*How do pre-service teachers perceive this particular MC program in preparing them for teaching in MC situations?*

In addition, four further questions were posed as an underpinning to the key research question:

1. *What concerns do pre-service teachers have about multi-class teaching prior to undertaking their multi-class program?*
2. *What aspects of their multi-class Unit do pre-service teachers perceive will be effective during their practicum?*
3. *What aspects of the multi-class Unit are relevant and applicable during their practicum?*
4. *How effective do pre-service teachers perceive their overall multi-class program was in preparing them for multi-class teaching?*

The key research question, together with the four underlying questions guided the study to develop an understanding of pre-service teachers' experiences of their preparation for MC teaching.

### *1.5 Definitions of Key Concepts*

This section provides definitions of key concepts used throughout this study:

- *Competencies* are a list of learning objectives or attributes that teachers need to achieve and are associated with skilled teaching (Barry & King, 1998).

Competencies are the learning experiences or skills that can be measured or tested against Indicators.

- *Indicators* are a set of observable activities that show that the competencies have been accomplished effectively. Indicators provide evidence of knowledge and skill through written documentation (Danielson, 1996). They are the outcomes that can be observed to find out whether the objectives have been met or not.
- *Mono-grade* is a situation where only one grade of students of similar ages is working together. In the Fiji context it would be known as a straight class or a single class (Collingwood, 1991). As such, I will be using the term straight class when referring to mono-grade in this study.
- *Multi-age class* is a class made up of different age groups of children working sometimes on the same curriculum material and sometimes on different curriculum material. It is usually a deliberate mix of both age and grade (Veenman, 1995). Multi-age classes are formed by choice because of a belief that diversity enables more flexibility in learning experiences (Cornish, 2006).
- *Multi-class* (MC) is a class made up of students of different classes learning together in the same classroom. Different scholars have defined MC in their own ways, for example, according to Veenman (1995) it involves the teaching of children using their respective curriculum materials. A MC is formed by necessity such as small student population and is not a pedagogical choice. In the Fiji context, people mostly use the term MC because different levels of education at the primary school are known as classes; thus the term multi-class (MC) is used in the present study. I will, therefore, mostly use the term multi-class when referring to multi-grade (unless directly citing the work of other authors).
- *Multi-grade* (MG) is another name for MC, as in some countries classes are known as grades. These changes are formed by necessity. Therefore, the term,

multi-grade, is used in the study when referring to contexts where classes are known as grades. A multi-grade situation is where students of different grades and ages learn together with one teacher (Pridmore, 2007). According to Little (2003) multi-grade teaching is where a single teacher has sole responsibility for two or more grades, or classes, of students simultaneously.

- *Pedagogy* is the art of teaching and using strategies to encourage learning. Effective pedagogy incorporates different teaching strategies that support meaningful learning. In the school context, pedagogy is the activity of teaching children and requires constant reviewing of teaching strategies in order to make them more appropriate and relevant (VanManen, 1998).
- *Practicum* refers to a period of professional experience where the pre-service teachers are posted to schools and required to perform the duties of a classroom teacher under the guidance of the Associate Teacher or the Head Teacher. It is also known as teaching practice or professional experience. The practicum allows the pre-service teachers to apply the principles of teaching and learning in actual classroom contexts (Barry & King, 1998).
- *A practicum coordinator* is the lecturer in charge of making arrangements with schools in regards to the posting of the pre-service teachers. A practicum coordinator briefs the pre-service teachers about the requirements of the practicum and the ethics of the teaching profession.
- *A program* in the context of this study is a taught unit and its associated practicum component. Apart from completing the requirements of the unit, pre-service teachers also have to meet the requirements of the practicum.

- *A unit*, which is also known as an “on-campus unit”, in the context of this study is a one semester taught course of study at the Teachers College. A unit consists of lectures, workshops and tutorials, and is supported by a course book. It is assessed through assignments and an end of semester examination.

### *1.6 Significance of the Study*

There are several reasons why this research is significant. Predominantly, it addresses concerns about the paucity of research regarding the education of those teaching in multi-class situations. The present research is especially relevant to issues that relate to the pedagogical practices and the dimensions of multi-class teaching.

In addition, this study is significant because it is the first comprehensive research into multi-class teacher education in Fiji. Since there is a dearth of local literature available on multi-class teaching, this study will contribute to local literature on the subject. The information from this thesis may be used by teacher education institutions for improving their multi-class programs. It is hoped that this study will benefit disadvantaged children in rural and remote areas in Fiji and beyond by making multi-class teacher education more effective.

This research also builds upon my previous research on teacher training (Ali, 2004). The practicum used by the Teachers College is viewed as the cornerstone of an ideal teacher education program (Maxwell, 2004) and the issue of how this articulates with the learning in the Teachers College is the issue here. The findings will give new direction to the MC preparation program by providing significant information and by making appropriate recommendations.

Doing research in one’s own context (that is, my context is a Fiji national studying in his speciality area: Fiji education) encourages a reflective approach to teaching (scholars who do research on their own institutions are generally described as reflective practitioners)

(Beck & Kosnik, 2006). “Another reason for doing self-study research on one’s pre-service practice, of course, is to provide a basis for improving it” (Beck & Kosnik, 2006, p. 132). The research methodology and findings from this thesis will, therefore, provide important insights into the review process of the MC preparation program, helping ensure that pre-service teachers are better equipped with MC knowledge and skills.

Previous experience has shown that pre-service teachers in Fiji face problems regarding classroom organisation and time management (Lingam, 2004). Previous research has shown that the daily routines of teachers in MC schools are quite meticulous and demanding; such teachers have to manage with limited resources (both infrastructure and access to resources) and face reduced instructional time because they have to teach different curricula to different classes (Ali, 2004). Moreover, pre-service teachers, as well as practising teachers worldwide, face difficulty in coping with the dynamics of multi-class teaching (Cornish, 2006; Pridmore, 2007). The findings from this thesis will provide insights into the concerns and expectations of pre-service teachers that, if addressed, would enable such teachers to better cope with the challenges of MC teaching.

The analytical focus on MC pedagogy taken in this thesis will also be of value to schools having straight classes (Cornish, 2006); such classes are rarely homogeneous in nature. Teachers prepared in MC pedagogy will be better able to cater for the individual needs of children in a mono-class situation. This is an argument that is not well known in Fiji or in the wider Pacific but this research should be a catalyst for its promulgation.

Differentiation and integration, which are aspects of MC pedagogy, can be slightly modified and implemented in a straight class situation.

The study in this thesis will provide more in-depth knowledge of the different ‘stakeholder families’. For example, it will provide the curriculum planners at the Curriculum Advisory Section (CAS) of the Fiji government with a better understanding of the role of the

teacher training institution and motivate them to inform trainees of any changes in the preparation of curriculum materials for use at the primary school level. It is also hoped that the findings from this thesis will encourage the Ministry of Education (MOE) of Fiji as well as the two teacher unions, the Fiji Teachers Union (FTU) and the Fijian Teachers Association (FTA) to acknowledge the importance of a good MC program. The findings of this thesis will also highlight the relationship between the practicum and the course work, which may encourage the integration of the method into the Bachelor of Education (Primary) program currently offered by the University of the South Pacific (USP).

Finally the study will provide relevant information to the Australian Agency for International Development (AusAID). During 2003 and 2006 AusAID assisted the Teachers College in this study to upgrade its certificate level courses to Diploma level, and thus assisted in reshaping the practicum and the professional learning program. The present MC program is a direct result of the upgrading project. Prior to that project, there was no MC teaching program in the curriculum of the College.

### *1.7 Delimitations of the Study*

This is a study of pre-service MC teacher education and does not address in-service training in this area. Since a case study research design was adopted for the study, no attempt is made to generalise to other programs. However, other programs may learn from this study; the findings may be adapted by the readers to their own situations (Stake, 1995; 2000).

### *1.8 Limitations of the Study*

This study has a number of limitations:

- As discussed earlier there is a lack of local literature on MC teaching thus international literature was predominantly used for the purpose of the study. Notably,

the finding of a dearth in local literature highlighted a gap that this research is intended to fill.

- Conducting interviews and doing observations was difficult as most of the MC schools were located in remote areas. Although the number of interviews conducted was sufficient to provide robust results, it would have been ideal to have conducted more interviews.
- Despite undertaking a MC program, all the pre-service teachers were unable to experience a MC practicum. Although data were collected from all the pre-service teachers, only the data from those who had been posted to MC schools have been reported in relation to the third underlying research question (on the effectiveness of the preparation unit for the MC practicum). The data from participants not posted to MC schools were used in relation to the other underlying research questions.
- Unfortunately, some of the practicum reports were not sighted by me till towards the end of the research phase of this thesis. Consequently results from these reports were integrated back into data already collected. The delay in obtaining practicum reports was caused by their late arrival at the College from remote schools that had been included in the thesis research.
- There was a certain level of bureaucracy to be followed and interviews with certain associate teachers in the study were conducted on an ad-hoc basis. Because these teachers were teaching fulltime, it was difficult to conduct interviews during normal teaching hours. This meant that the quality of some interviews with associate teachers was compromised.
- The time available for this research was limited in terms of duration by extraneous events taking place in the country. Due to the Government's sudden decision to

reduce the retirement age of teachers, there was a mass shortage of teachers and the second year pre-service teachers had to be absorbed into the field as full time teachers (Chand, 2009). Thus, the MC preparation program was shortened by three weeks. However, I was able to take advantage of the situation by interviewing eight of the pre-service teachers in the field in their full time continuing positions. This means that, there may be some factors related to MC teacher education and the practicum that this report cannot claim to have comprehensively covered.

### *1.9 The Organisation of this Thesis*

The study is organised into six chapters:

Chapter One gives an overview of the study and provides relevant information associated with my interest in the study, its research questions and significance.

Chapter Two presents an analysis of the relevant body of knowledge in areas related to this research such as the driving forces behind the pedagogical principles and practices in MC teacher education programs. It discusses a number of international publications and research articles pertinent to this area of study; that is, teacher education for MC teaching contexts. Importantly, Chapter Two forms the conceptual foundation for the discussion and analysis that take place throughout the study.

The third chapter discusses the MC program and the context. It presents a brief overview of the historical perspective and provides the general outline of the overall administration of the education system in Fiji. It points out the important part that the Teachers Colleges play in teacher education and in MC pre-service education in particular. It is important to look at the content and structure of the MC preparation program as the research is focussed upon the MC learning in the college and its relationship with the learning during the practicum.

Having identified the pertinent literature and the context of the study, in Chapter Four, I justify the set of beliefs and understandings of reality that underpin this study; that is, the study falls within the interpretive paradigm (Cohen, Manion, & Morrison, 2007). Congruent with the interpretive paradigm, I justify the choice of a case study design using a mixed-methods approach to data collection and analysis.

Chapter Five presents the findings and discussion of themes related to each of the research questions. The results are discussed in detail under appropriate subheadings that have arisen from the review of pertinent literature as well as the research questions. This chapter has five sections that present the analysis and discuss each of the research questions respectively with a brief summary at the end of each section. The final section presents the overall summary of all the sections.

The final chapter, Chapter Six, draws upon previous findings and discussions, and presents the answers to the research questions; it provides conclusions based on the findings, and looks at the implications and recommendations of the study for possible future research, policy and practice.

## **Chapter 2: Literature Review**

### *2.1 Introduction*

This chapter reviews pertinent literature in relation to teaching and learning in MC contexts throughout the world. In particular it discusses the issues that have a direct impact on the preparation of teachers for teaching in MC situations. The literature is discussed taking into consideration the aim of the research in this thesis, which is to develop an understanding of pre-service teachers' experiences of their preparation for MC teaching as they progressed through a MC program in Fiji. Importantly, the theories and concepts uncovered in the literature review informed and provided a strong foundation for the conceptualisation of the research questions for this thesis.

This chapter is presented in two parts. Part one provides information on the background and prevalence of MC teaching. It discusses the present day scenario in relation to MC teaching. Much of the literature reviewed on MC relates to teaching in countries outside the Pacific; unfortunately, there is a paucity of literature or research into MC teaching in Pacific Island States such as Fiji. Part one consists of an analysis of current situations in relation to MC teaching by considering the various reasons for the introduction and implementation of MC teaching in developing as well as developed countries. The first part of this chapter also focuses on the present policy directives, curriculum content and issues, and presents a view of the future status of MC teaching.

Part two begins by exploring the need for in-service education in MC teaching, then discusses the necessity for the better preparation of pre-service teachers for teaching in MC situations. Part two consists of an analysis of current situations regarding the preparation of pre-service teachers for MC teaching. Studies considered are those conducted in different countries where MC teaching is practised; with particular emphasis on the studies' pre-

service teacher education programs. Part two also analyses the significance of a supportive practicum and discusses the various instructional dimensions associated with MC teaching. It concludes with an overview of the future directions for MC teaching.

## *2.2 Part 1: Contextual Factors in Multi-class Schooling*

In this section I present an overview of MC schooling in the world. As discussed earlier in Chapter 1, except when directly citing the work of other authors, I will be using the term “MC” in preference to “multi-grade” as it is the term most commonly used in Fiji. Note also that the terms “straight class” is synonymous with “mono-class”.

### *2.2.1 Benefits and Challenges of Multi-class Schooling*

MC schools have been making a valuable contribution to education for millions of economically, socially and geographically disadvantaged children in the world. Despite the odds, many children in MC schools take advantage of the learning opportunities provided to them. Previous research (Ames, 2007; Berry, 2007; Little, 2007) has indicated that children in MC situations are provided with opportunities that have a range of positive outcomes. A study that compared learning opportunities for children in MC as compared with straight class contexts in the Turks and Caicos Islands revealed that children in MC situations “get exposure to work at different grade levels, which can both reinforce and extend their learning opportunities” (Berry, 2007, p. 39). This is because they can listen and learn when the teacher is teaching another class in the same classroom. It is also claimed that a better affiliation is formed between teachers and the pupils; class sizes are often small and the teacher often has the same class for several years allowing opportunities for interpersonal relationships to develop over time.

In MC situations children are able to develop leadership qualities as they learn to work together as a group and assist and guide their peers. MC “provides rich opportunities for cooperative peer learning” (Higgins, 2006, p. 187). Berry and Little (2007) explored teachers’

perceptions of the challenges, opportunities and pedagogical implications of teaching in MC schools in London. Findings revealed that children in MC situations benefited from cognitive stretching, modelling, peer tutoring and behavioural modelling. These benefits confirm those identified by others (e.g., Aikman & El Haj, 2007; Hussain, 2006; Little, 2007; Pridmore & Vu, 2007).

However, there are certain challenges in teaching children in MC situations. Berry and Little (2007) identified curriculum organisation, catering for different ability levels and the constraints posed by assessment as the major problems associated with MC teaching. This situation is true for the Fiji context, as teachers in Fiji have to cover at least two sets of curriculum materials and must do so within rigid timeframes. Apart from preparation and teaching they also have to mark work and prepare assessment tasks for more than one class (Ali, 2004). Thus, teachers in MC situations usually have a higher workload compared with their counterparts who are teaching in straight classes (Pridmore & Vu, 2007). Veenman (1995, p. 372) agrees with Pridmore and Vu (2007) that “multigrade classes impose a greater workload, require more preparation time, and demand better classroom management skills”. But there is usually a lack of education about MC contexts at teachers colleges, often leading to a lack of classroom organisational and management skills by teachers (Pridmore, 2007; Yembuu, 2006) thus making the teacher’s role even more difficult.

Most MC schools worldwide are located in rural and remote areas, and teachers in these schools are often disadvantaged because of limited access to better health and social amenities (Little, 2007). There is also a lack of incentives for teachers teaching more than one class at the same time and unavailability of relieving teachers puts extra burden on MC teachers. Despite the challenges, MC schools have been providing learning opportunities to millions of children in rural and remote areas. A review of pertinent literature has shown that there is an enormous prevalence of MC schooling throughout the world.

### 2.2.2 *Prevalence of Multi-class Schooling*

Multi-class schooling is not only the norm in many developing countries but also occurs in many developed countries (Cornish, 2006; Maxwell, 2008; Ninnes, 2006; Pridmore, 2007). Thomas and Shaw (1992) believe that MC teaching occupies a unique place in the history of education throughout the world. This is because MC schools are the only way education is provided in rural parts of Bhutan, Vietnam, Nepal, Sri Lanka and most African and South American countries. For example, MC (community) schools enabled Bhutan to bring primary education to children in remote parts of that country from the early 1990s (Maxwell, 2004). In France, Britain and the Netherlands, MC schools are established in small communities in response to small or declining student populations and consequent staffing reductions thus enabling the preservation of the religious and cultural identity of the local communities. This aspect is clearly visible in the setting up of most of the schools in Fiji by the local communities, and cultural and religious organisations. Table 2.1 shows the distribution of MC schools in many parts of the world.

As already noted, MC teaching is not only prevalent in developing countries but is also present in a number of developed countries such as in Australia and England (Little, 2007). MC schools are formed mostly due to low student populations and have fewer teachers. It is not economical to have a teacher per class as the classes are usually very small. MC teaching is adopted out of necessity and is not a model chosen for pedagogical reasons. For example, for Fiji, which is a developing country, MC schools are a necessity because of the remoteness of the settlements and the scattered nature of the islands. MC schools have attracted attention in developing countries because of their potential to increase participation rates in primary education. By bringing schools closer to communities, more children, especially girls, are encouraged to enrol and stay in school. As such, the analytical focus of the literature is on developing countries because of its relevance to the present study.

Table 2.1  
*Prevalence of Multi-class Teaching* (Little, 2004, p. 13)

Country	Year	Prevalence
Australia	1988	40% of schools in the Northern Territory had multi-grade classes
Cook Islands	1990	Approx 50% of schools had multi-grade classes
England	2000	25.4% of all classes in primary education were classified as “mixed year”. 25% of all students were studying in mixed year classes
Fiji	1990	Approx. 50% of all primary schools were multi-grade schools; 25% of all teachers taught in multi-grade classes
India	1996	84% of primary schools had 3 teachers or fewer. Since primary schools have 5 curriculum grades this means that some teachers must be responsible for 2 or more grades for part of the day
Kiribati	1990	Approx. 60% of all primary teachers taught multi-grade classes; 50% of students in primary education were taught in multi-grade classes
Northern Ireland	2002/3	21.6% of all classes in primary (Y1–7) were composite classes
Scotland	2002	27% of all primary classes were composite classes. 22.3% of all students were in composite classes
Solomon Islands	1990	Approx. 25% of all schools had multi-grade classes
Sri Lanka	1999	63% of all schools have 4 or fewer teachers. Primary schools have 5 curriculum grades but most schools contain post-primary grades as well. Hence some of the 63% will be offering both primary and post-primary classes
Tuvalu	1990	91% of all schools had multi-grade classes
Turks and Caicos Islands	2000	30% of primary schools were multi-graded
Vanuatu	1990	28% of all students were in multi-grade classes
Wales	2002	34.4% of all classes in the first three years of primary (R-2) were composite classes. 33% of all students were in composite classes. 13.7% of Welsh schools have 50 pupils or fewer
Zambia	1984	26% of primary schools were one-teacher schools

Multi-class teaching is the main means of providing basic education in rural and remote areas of many developing countries. For some communities “multi-grade teaching is not an alternative but a rational economic choice based on objective social circumstances” (Juvane,

2010, p. 10). For example, MC teaching is very common in the rural areas in Mongolia because of their sparse population “isolated administrative units, poor infrastructure and harsh weather” (Yembuu, 2006, p. 93). MC teaching, therefore, is essential for this country and, with support from United Nations International Children’s Fund (UNICEF), teachers are provided with short training. Yembuu (2006) believes that despite the challenges, teachers will benefit and be able to better serve the children in MC schools.

The difficulties faced by MC schools because of geographical and infrastructural circumstances are similar in many developing countries; MC teaching presents similar challenges for teachers world-wide. The situation in Peru provides a typical example. In that country, MC schools serve a large segment of the population. Currently there are 23,419 MC schools in Peru, which make up “73% of the total public primary schools” (Ames, 2007, p. 47). In her ethnographic study of a rural MC school in the Peruvian Amazon, Ames (2007) discovered that despite lack of training and resources, teachers continue to serve in the MC context. There are similar situations in most developing countries and numerous studies (Ames, 2007; Berry, 2007; Little, 2007; Yembuu, 2006) have identified MC teaching contexts.

Despite the many challenges, MC schools have made an impact in the delivery of quality education to many disadvantaged children. Nepal is no exception as 60% of its schools have MC teaching situations (Suzuki, 2007). Nepal is a small country where over 90% of the population live in rural and mountainous areas (Suzuki, 2007). Nepal is predominantly an agricultural country but the land has limited productivity. Parents, therefore, are generally not very well off and are not in a position to contribute much towards school resources. Yet MC schools have existed in such areas over a long period of time.

The prevalence of MC schools indicates that MC schooling is a valuable means and an important tool for the delivery of basic education especially in rural and remote areas.

Akyeampong (2007) states that MC teaching is used as a means of providing basic education to children in poor and remote areas in northern Ghana. He further states that Northern Ghana has socio- demographic conditions typical of many poor and deprived communities in Africa. It has high levels of poverty and the settlements are scattered. By introducing MC schooling it became possible to increase access for children who would otherwise have missed out on a chance for education (Akyeampong, 2007).

Similarly, MC schools were set up in Vietnam to provide basic education to children living in small communities in the rural areas. A case study of how Health Education was being taught in Northern Vietnam confirmed that teachers have been teaching more than one grade level and this “has long been a feature of the primary education system in Vietnam” (Vu & Pridmore, 2007, p. 155). MC schools were viewed as an efficient means of providing education services to rural areas.

The UNESCO/APEID report (1989) highlights that MC schools are found worldwide and are also very common in the Pacific Island states where the communities are small and isolated. Several Pacific Island States have MC teaching situations and Fiji is no exception, as 50% of all primary schools are MC (Ministry of Education, 2009).

The high prevalence of MC schooling raises some interesting questions about the quality of teachers serving in such schools. The following section discusses the present day scenario of teachers teaching in different MC contexts.

### *2.2.3. Lack of Preparation for Teachers in Multi-class Schools*

Although much of the literature relates to other educational contexts, it provides valuable insights about MC teaching in small developing countries in the Pacific, such as Fiji. The present day situation for MC teaching throughout the world is generally quite disturbing largely because of the number of untrained teachers involved. Teachers mostly get trained to

teach straight classes but end up in MC teaching situations. A research paper entitled “Redefining the Role of MG Teaching” was presented at a Ministerial Council in Ethiopia where the author argued that:

Multi-grade teaching assumes teachers are trained, skilled and well experienced to handle multi-level and multi-ability classes. This is not always the case. The reality in many countries is that untrained teachers have to deal with mixed classes. However, due to lack of appropriate education and support these teachers are not effective in multi-grade contexts (Juvane, 2005, pp. 4-5).

Juvane (2005) points to a key issue: it is one thing to have MC schools but it is another to have teachers in them who are well trained. This issue was also raised at the Southern African Multi-grade Education Conference in South Africa in 2010 and one of the conclusions reached was that there is an urgent need for a more integrated plan for the education of MC teachers. Such a plan would encourage a more participatory approach to implementing necessary changes and improvements, involving teachers more directly in taking responsibility for their own professional development and for the improvement of teaching and learning in South African schools. Although comprehensive information about the plan and its implementation are not yet available, it appears that awareness has been created of the need for having qualified teachers in MC teaching situations.

It may still take some time for the above initiatives to materialise due to administrative and bureaucratic processes. In the meantime, Maxwell (2008) is concerned about the lack of teacher education in the area of MC teaching and notes that in Zambia, one third of all school children are being taught by untrained teachers. This is a very valid concern as it compromises the very essence of providing meaningful education to children who are already socially and economically disadvantaged. The views expressed by Maxwell (2008) are

supported by Vu and Pridmore (2007) who, while discussing their research findings on MC schools in Vietnam, state that there is a grave shortage of trained teachers and “there are no formal education programs in multi-grade teaching in teacher education colleges” (p. 159). Given this situation, it is hardly surprising that many parents and teachers hold negative attitudes towards MC teaching (Pridmore, 2006). Teacher education in MC practices will be a catalyst for enhancing learning opportunities for children in MC situations.

There is no doubt that the current scenario “presents us with a paradox because it rarely matches what it purports to be” (Pridmore, 2006, p. 49). That is, teachers are prepared for straight class teaching but most of them end up teaching in MC situations. The following studies shed further light on the paradox raised by Pridmore (2006). A team of researchers from the Institute of Education from University of London explored MC teaching practices in the contexts of Peru, Sri Lanka, Nepal and Vietnam. The findings revealed that mostly untrained or teachers trained in straight class pedagogies were teaching in MC schools. These findings have explicit implications for policy makers and teacher educators. One such implication was the need for the teachers to be equipped with MC teaching strategies so that they are better able to cope with the challenges of teaching in MC situations. Similarly, Suzuki (2007) states that teachers in Nepal do not go through any education in MC teaching during their pre-service teacher education programs but many are found teaching in MC situations. Furthermore, MC teaching has not been officially recognised by the education department in Nepal. However upon graduation a “large numbers of teachers find themselves responsible for multi-grade classes” (Suzuki, 2007, p. 87).

It can be certainly established that there are gaps between what is expected and what is actually happening in most MC schools. This is because little or no attention has been paid to the special circumstances of MC teaching in teacher education programs in many countries using MC schools. While the efforts of teachers teaching in such situations should not be

belittled, there is no doubt they should be provided with adequate education and exposure to MC pedagogies; there should be in-service education for existing teachers and improvements in pre-service teacher education programs by way of incorporating aspects of MC pedagogies and practices. Issues related to support for MC teachers are discussed in Part 2.

### *2.3 Part 2: Teaching in Multi-class Schools*

#### *2.3.1 Support for Multi-class Teachers*

This part of the review discusses the importance of relevant policies in education and presents an overview of MC teacher education programs. The section begins by arguing the importance and need for in-service education for practising teachers who have been teaching in MC schools without any formal education in MC practices. It goes on to conceptualise issues related to in-service education and analyses contemporary matters regarding practicum and instructional dimensions.

##### *2.3.1.1 Policy Support*

Policies are guidelines that give a sense of direction and outline an organisation's goals and desired effects. It is important that Governments and teacher education institutions have policies that clearly stipulate the terms and conditions of MC schooling. Policies rationalise courses of action and, in the case of MC teaching, "policy development is needed to recognize, legitimate and support learners and teachers in MG settings and create a supportive environment at both central and local levels" (Ninnes et al., 2006, p. 279). As such, teacher education institutions need policy documents to guide them in the development of relevant MC curriculum materials and validate the delivery of such a program.

Although the MC concept is very old and has existed in parallel with the history of development of education in many countries, it lacks formal recognition. Such recognition can exist in two main ways: through the formal collection of data related to MC teaching; and

through the establishment of relevant policies. For example, MC teaching has existed in Lao PDR for a long time especially in remote and disadvantaged areas “but there was no exact data on multi-grade teaching available until 1991” (Phommabouth, 2006, p. 151). In relation to policy, a number of influential studies (Ninnes et al., 2006; Pridmore & Vu, 2007; Suzuki, 2007) have examined MC practices and revealed that many countries lack policies and, therefore, the requirements of and specific goals of MC programs are not clearly spelt out.

According to Pridmore (2006), lack of relevant policy is very alarming as it acts as an impediment in the delivery of quality education in MC teaching situations. She believes that by having policies in place, the significance of MC schools can be better established. In summing up the studies held in various countries, she concludes that policies not only give a sense of direction but also legitimise the work of the teachers. The recommendation of one such study that was conducted in Sri Lanka from April to February 2002 was “to recognise and support multi-grade teaching by education policy as an option for teaching in Sri Lankan schools” (Vithanapathirana, 2007, p. 151). This comment points to the important role played by policies in providing support for programs and recognition by the relevant authorities. Similar situations exist in other countries such as Sudan and Nepal where the educational planners themselves are “unaware of the extent and nature of the needs of multigrade classes” (Little, 2007, p. 340). Unfortunately, this issue is found in other developing countries where “multi-grade schools remain highly visible to those who teach and learn in them, but invisible to those who work beyond them and yet who plan and manage” (Little, 2007, p. 23). Much of this invisibility is due to lack of policies and as such MC schooling has failed to be duly recognised as an important educational provision.

However, simply having policies in place will not solve the problem faced by MC teaching; policies need to be implemented. Educational change or reform is not just about putting the policy in place but is based on the improvement of relationships between policies

and the people implementing the policy (Fullan, 2001). In many countries policy development is mired by bureaucratic procedures and lack of commitment by those in power. For example, although MC teaching situations are present in Thailand, there are no relevant policies due to a lack of support from the Ministry of Education (Ninnes et al., 2006). It must be considered that lack of policy may lead to a lack of guidance and at least in part to lack of commitment on the part of the teachers and this can result in MC being relegated to “second class” status when compared to straight class teaching. It is of great concern to note that “one third of classes worldwide are MG yet there is a distinct lack of policies” (Cornish, 2006, p. 2).

More awareness needs to be created so that all stakeholders become informed about the important role played by MC schools. Having relevant policies will allow accountability and transparency in the development of flexible learning materials and better delivery of the curriculum. Findings from a study conducted in Sri Lanka led to recommendations to support MC teaching by developing an appropriate education policy (Vithanapathirana, 2007). Bhutan is another example where this situation occurs, as a recent study by Kucita (2009) revealed the need to raise “awareness about the extent and nature of the needs of multi-grade teachers and to lobby for policy development and adequate funding support to implement policy” (p. 149).

Education for All (EFA) promotes recognition of the need to expand quality education to all children in the world irrespective of where they live (United Nations, 2010). Most Governments in the world have become signatories of EFA and have initiated programs in their own countries to allow all children to have free and compulsory primary school education (Little, 2007). MC schools are seen as an effective means of achieving the EFA goals of improving the education of children in isolated circumstances, and for ethnic

minorities. Therefore, MC teaching will remain a norm in many developing countries because of socio-economic and demographic reasons.

Having appropriate policies will enable due recognition of MC teaching as a valid means of education for disadvantaged communities. Such recognition could then lead to MC teaching being included in pre-service teacher education programs. Such policies may also act as a catalyst to the development of appropriate programs for in-service education for many practising teachers in MC situations.

#### *2.3.1.2 Need for In-service Education in Multi-class Teaching*

The experiences of different countries stated earlier illustrate the gaps between expectation and reality in MC situations. As a result, this section briefly discusses the need for in-service education for MC teachers. It is important to consider in-service education for teachers who have had basic teacher education so that they are better educated to manage the complexities of teaching and classroom management in MC situations. According to Pridmore (2006):

Most teachers in MG schools are only trained to teach single-grade classes and often try to replicate the mono-grade organisation by teaching each grade level separately at a time. This approach creates a heavy workload, requiring the planning and delivering of separate lessons to each grade group throughout each day (p. 59).

The valuable services provided by the MC teachers demand they be guided and supported in such situations. Little (2007) also believes that teachers trained for straight class teaching experience difficulty in transferring their skills to MC situations. As such, it is deemed necessary that practising teachers who do not have any education in MC teaching undergo in-service education programs in MC teaching practices.

The arguments in support of in-service education are many, and there are cases that illustrate its importance to MC schooling (Hussain, 2006; Little, 2007; Pridmore & Vu, 2007; Suzuki, 2007; Yembuu, 2006). In-service education allows teachers to update themselves with current issues and learn new pedagogies and practices that can be effectively implemented in classrooms. In-service education not only refreshes a teacher's commitment to teaching but also expands their understanding of the work of teaching. According to Yembuu (2006) in-service teacher education in MC teaching pedagogies is provided to teachers in Mongolia with the help of UNICEF. She believes that such education is essential for teachers teaching in MC schools as it “provides an appropriate way to improve the current teaching and learning practices in formal schools” (Yembuu, 2006, p. 101). Kucita (2009) undertook a study to find out how well teachers were prepared to undertake MC teaching in Bhutan. He used surveys and interviews and his study revealed that “none of the teachers participating in this study had received much, if any, preparation in the pre-service teacher education program” (Kucita, 2009, p. 156). He therefore highly recommended in-service education so that teachers are better prepared to teach in MC situations.

Furthermore, Hussain (2006) argues that teachers can learn a lot about MC pedagogy from in-service education. The findings from an action research project conducted in the northern areas of Pakistan revealed that teachers teach using mono-grade strategies in MC teaching situations. An intervention was provided through in-service education with good results. Participants openly admitted that the empowerment and the support provided by the intervention enabled them to plan teaching strategies more effectively and develop better classroom resources. One observation was that whilst the in-service teachers lacked pedagogical skills, they could “reason with the knowledge that they have” (Hussain, 2006, p. 108). She further purports that empowering practising teachers with MC skills and capacity building are powerful learning experiences.

The benefits from exposure to in-service education by MC teachers would no doubt trickle down and have a positive impact on children in MC situations. Although the transfer of this impact to the classroom can be questioned, it is assumed that better qualified teachers make learning more interesting and meaningful for the children (Pratt & Treacy, 1986). To take advantage of the benefits of training teachers for MC situations, the Nepalese government has started implementing in-service education as a strategy to improve the quality of MC teaching (Suzuki, 2007). It is encouraging to note that policy makers have started taking into consideration the importance of in-service education as a means of providing opportunities to those teachers who did not cover MC pedagogy in their pre-service teacher education programs.

#### *2.3.2.3 Need for Pre-service Education in Multi-class Teaching*

Teacher education is changing and evolving. Preparation of pre-service teachers by universities and teacher education institutions for work in educational settings is an important part of the overall development of professional teachers (Lord & McFarland, 2010). The complexities of teaching have always presented a challenge as to how pre-service teachers can best be guided and educated to provide quality educational experiences for the children (Field, 1994).

Earlier discussions have painted quite gloomy pictures of how untrained teachers, or those trained for straight class teaching, are the ones who are predominantly found in MC situations. The conclusion drawn is that pre-service teachers need to have specialised education so that they are able to cope with the demands and challenges of MC teaching. Investment in the skills of pre-service teachers “should be seen as contributing to the goal of quality basic education for all” (Joubert, 2010, p. 25). Teachers need to know about MC

teaching strategies as well as classroom management and organisational skills so that they are able to handle more than one class at the same time.

Little (2007) and Cornish (2006) have both echoed the importance of preparing teachers to meet the challenges of teaching in such situations. Moreover, in its effort to address the issues of teacher education, a task force was set up in four sub-Saharan African countries. Findings from the case studies this task force undertook revealed that there was a strong consensus that effective multi-grade teaching required management strategies that focus on flexible teaching pedagogies and “a range of teacher incentives that help address the current negative image of the approach” (Higgins, 2006, pp. 189 - 190). As discussed earlier, the negativity is mostly due to teachers’ taking charge of children without any relevant preparation. Such teachers often have low self esteem and morale because they consider themselves “disadvantaged in terms of living and working conditions” (Pridmore, 2006, p. 55). The inference is that if teacher education programs incorporate MC strategies, pre-service teachers will be more willing and better prepared to teach in MC situations.

Pridmore (2006) considers that only well prepared teachers can help provide quality education in MC contexts. Taking into account the challenges in such contexts, teachers need to possess appropriate pedagogical skills as well as have better understanding and appreciation of issues related to teaching and learning. While organisational structures are needed to support learning, they cannot be a substitute for good teaching. As such, she acknowledges the need for specialist education during pre-service teacher education programs. In reporting the work of a research team from the Institute of Education, Pridmore (2006) recommends that pre-service teacher education programs need to be expanded to include MC pedagogies and practices. A more inclusive program would enable teachers to better cope with diverse learning needs of children as “the diversity is greater in MG classes” (Pridmore, 2006, p. 51).

Moreover, while summarising the findings from various research on MC teaching, Little (2007) affirms that “none of the teachers in Peru, Sri Lanka, and the Turks and Caicos Islands had received pre-service education in multi-grade teaching” (p. 328). This summary statement and supportive arguments indicate the need for an inclusive teacher education program; a program that caters for straight class as well as MC pedagogy and practices. Such a program would be advantageous to all pre-service teachers because “a well prepared MG teacher can teach in any type of class but a well-prepared mono-grade teacher cannot easily teach a MG class” (Cornish, 2006, p. 8). While learners and learning lie at the core of most education systems in the world, it is the teachers who are the human resource providing meaningful learning experiences.

An effective pre-service teacher education program that caters for MC teaching will provide teachers with knowledge and skills to better cope with the challenges of teaching in MC situations. In summary, it would appear that pre-service teacher education is the most efficient way of preparing teachers for MC teaching. The following section discusses various issues associated with implementing an effective MC teacher education program.

#### *2.3.1.4 Multi-class Teacher Education Programs*

Although numerous authors (Ames, 2007; Berry, 2007; Cornish, 2006; Higgins, 2006; Little, 2007; Maxwell, 2008; Pridmore & Vu, 2007) have identified the need for a pre-service program that caters for MC teaching, little analytical attention has been paid to its organisation and implementation. While some teacher education institutions claim to have started including MC teaching in their in-service teacher education programs, no information is provided about the MC component of such a program (Ninnes et al., 2006). For example, while it is encouraging to note that in Lao PDR MC teaching has been included in three of its teacher education colleges, the content and implementation details are not provided

(Phommabouth, 2006). According to Ninnes et al., (2006), “formal learning about MG teaching is rare in pre-service teacher education” (p. 275). This conclusion was reached at a multi-grade conference in Bangkok when it was found that only 6 out of 23 countries indicated they had formal pre-service teacher education programs in MC teaching (Ninnes et al., 2006).

To date there has not been much published information on the content and extent of implementation of pre-service programs with MC components. Pre-service teachers need to be well prepared during their pre-service teacher education programs. This has implications for teacher education institutions wishing to implement a MC program because for that, they need access to policy documents, a supportive curriculum, teaching resources and personnel qualified in MC education. A MC program, being multifaceted, is best viewed as a package of interventions, one of which is the development of an appropriate curriculum that supports MC approaches.

#### *Relevant Curriculum/ Course book*

It is important to note that MC exists in many forms; it is universal as well as contextual and challenges the very orthodoxies of how students learn and the strategies that are implemented. A MC is not a single approach and requires discourse and documentation. A good starting point would be developing “workable” MC text books so that learning can be enhanced by having appropriate texts and a supportive curriculum that in turn would, “help MG teachers feel valued and competent” (Cornish, 2006, p. 25). Cornish (2006) and Lewin (2007) believe that in order for a MC program to be successful, appropriate curriculum reforms have to be initiated. Papers presented at the 2010 Multi-grade Conference held in South Africa from 22<sup>nd</sup> to 24<sup>th</sup> March, 2010, highlighted the importance of having curriculum that is inclusive and caters for MC teaching strategies (Akker, 2010; Jordaan, 2010; Joubert, 2010; Juvane, 2010). As such, it is considered relevant to suggest the need for special course

books to be developed in teacher education institutions so that proper training in MC practices can be provided for the pre-service teachers.

An observational study exploring how and what teachers learn in the United States of America revealed that “accomplished learning depends on the provision of adequate resources” (Shulman & Shulman, 2009, p. 6). Although the study by Shulman and Shulman (2009) was more oriented towards developing a new model for teacher education, it acknowledged the lack of adequate curriculum materials as a major stumbling block to the success of reforms aimed at improving teachers’ knowledge and skills. In the context of MC education, there is also an urgent need for teacher educators to have relevant curriculum that caters for MC teaching strategies and classroom management skills as presently there are “gaps between intentions, realities and outcomes” (Akker, 2010, p. 4).

There are many instances where teacher education institutions advocate that pre-service teachers be adequately trained in MC teaching but the reality of the situation is often different (Croft, 2007; Hussain, 2006; Vithanapathirana, 2010). There is usually a lack of relevant MC curriculum designed to assist pre-service teachers to effectively teach in MC situations. For example, Croft (2007) in her study looked at how teacher education in Malawi and other developing countries prepared their teachers to meet the needs of children in MC situations. Upon completion of her study she was not satisfied with the curriculum and the level of education given to the pre-service teachers. In fact she was not impressed with the MC aspect of the program as it was focused on teaching in multi-lingual and multi-cultural settings. She believed that new teachers should be better equipped with MC strategies and classroom management skills so that they could address the diverse needs of the pupils “in order to make education for all a reality” (Croft, 2007, p. 122).

Similarly, teacher education colleges in Peru have shown little concern for curriculum for MC teachers. This situation reflects the orientation of teacher education in Peru towards

the teaching of straight classes. As discussed earlier, this has been a common scenario and when these new teachers are placed in MC situations, they are often not able to cope with the emerging challenges. As such, the “difficulty of teaching in multi-grade situations is recognized because of the complex demands that multi-grade teachers face, particularly neophyte teachers” (Maxwell, 2004, p. 32). As such, an effective pre-service teacher education program in MC teaching requires a supportive teacher curriculum.

Although many countries take for granted that their teacher education institutions adequately prepare teachers for MC teaching, studies show that there are gaps that need to be addressed (Croft, 2007). Research was undertaken to explore the content of MC teaching in pre-service teacher education programs in five countries (Croft, 2007). Findings from Ghana revealed that the course that was supposed to prepare pre-service teachers for MC teaching just enabled them to “identify factors responsible for learning disabilities and remedial measures to be taken” (Croft, 2007, p. 109). Likewise, in Lesotho the curriculum as documented did not appear to clearly address the issues regarding MC teaching (Croft, 2007). Findings illustrate that although certain teacher education institutions claim that they have MC teacher education programs, they do not actually cover the pedagogy of MC teaching.

It must be remembered that MC teaching is complex and curriculum reforms are only one aspect of a pre-service teacher education program. In order to improve the quality of learning and teaching, teacher education institutions have to be well resourced with learning materials and teaching aids that can be used during tutorials and workshops.

#### *Multi-class Education Resources*

Teacher education institutions should also have ample resources so that pre-service teachers can have hands-on experience of using them while implementing MC strategies such as group work and modelling. An important impeding factor is that most MC contexts have distinct curriculum materials for respective classes provided centrally. Pre-service teachers

need to be aware of these curriculum materials and should be equipped with knowledge and skills in developing relevant teaching resources. MC teaching places extra demands on teachers because they are in charge of more than a single class and so they must prepare from at least two sets of curriculum resources in each subject. Thus they need to make adequate preparations so that one class can work on their own “while the teacher is busy with the other” (Collingwood, 1991, p. 15).

A MC teacher preparation program should contain, apart from teaching strategies, preparation of teaching resources and thorough coverage of the relevant primary school curriculum. This exercise will enable pre-service teachers to know all the resources mentioned in the books and they should use them during their workshops. Later on they can even improvise them to be used during a practicum and in future teaching assignments. Pre-service teachers should be encouraged to use manipulatives (concrete objects) because they significantly improve student learning (Barton, 2006). In interviews conducted during research on MC teaching, pre-service teachers stated that they needed skills in “individualising instruction and collecting resources and materials” (Miller, 1991b, p. 4). These comments by Miller (1991) indicate pre-service teachers’ perceptions need to be considered by teacher education institutions. According to Pridmore (2006), 25 years of research into teacher effectiveness has shown that, for children to learn effectively, teachers need to be well-resourced to promote active learning. Teacher education institutions, therefore, should have ample resources that pre-service teachers can use during peer teaching and micro-teaching sessions.

Concrete manipulation of resources makes learning more meaningful for the children. Therefore, teacher educators need to have the knowledge and expertise in demonstrating their application to the pre-service teachers.

*Expert Teacher Educators*

Teacher educators play a pivotal role in the preparation of pre-service teachers for a life of teaching. In order to maximize the learning opportunities provided to pre-service teachers, teacher educators need to be well educated in MC practices. They should have relevant research background and have some experience in MC teaching. This expertise will enable them to easily contextualise the MC pedagogies and make learning more meaningful for the pre-service teachers.

While there is an extensive literature on teacher education, it does not appear to address the issue of teacher educators for MC teaching. Education in MC teaching is only offered by a limited number of teacher education providers, as part of pre-service teacher education programs (Berry & Little, 2007; Hussain, 2006; Ninnes et al., 2006). Despite the long existence of MC schools, it seems teacher education in MC teaching is still a new phenomenon in pre-service teacher education programs around the world.

Vithanapathirana (2007) has highlighted the importance of capacity building of teacher educators or lecturers in teacher education institutions. In regards to Sri Lanka, she believes that the capacity building of teacher educators is a necessity. Teacher educators need to know the dynamics of MC education and be abreast of current developments in teacher education programs. She again raised this issue at the Southern African Multi-grade Education Conference that was held in South Africa from 22<sup>nd</sup> to 24<sup>th</sup> March 2010 (Vithanapathirana, 2010). Many teacher educators have supervision duties during practicums where they are required to provide guidance and support to the pre-service teachers. Therefore, they need to be well versed in MC pedagogy and practices.

Thus it can be concluded that the dearth of MC teacher education in pre-service teacher education programs offered by teacher education institutions has contributed towards the challenges faced by many teachers teaching in MC situations throughout the world.

#### *Multi-class Practicum*

Teaching practice provides the opportunity for pre-service teachers to recognise the link between the theoretical and the practical components of a teacher education program. A study consisting of interviews with beginning teachers in the United States of America revealed that “this opportunity to interact with experienced workers can be illuminating and provide insight into the actual mechanics of the tasks involved” (Evans, 2010, p. 197). Evan’s findings reveal that all the teachers cited practicum as the most important part of the teacher education program. Her findings also support an earlier study by Zeichner (2006) that learning during the practicum has a lasting effect on pre-service teachers. Practicums allows novice teachers to reflect on their practice and develop their knowledge and skills practically (Coldron & Smith, 1999). Smith (2007) argues that a practicum is not just for observing and figuring out what has to be done “but (helps students) to better understand theories of learning and teaching” (p. 31).

However, to date there are no studies that actually explore the dynamics of MC practicum. It must be noted at the outset that there is no literature base in regards to MC practicums. Therefore most of the issues discussed in the literature relate to normal practicums, but they clearly have relevance to MC practicums. Programs of teacher education usually have a supporting practicum component. It is important to have a supportive practicum because a loosely connected practicum will not provide the experiences for “critical learning” (Evans, 2010, p. 197). Earlier findings by Darling-Hammond (2000) are in agreement with the views expressed by Evans (2010) that practicums provide teachers with a source of practical advice and that for field experience to be most effective, practicums have to connect with education course work. A practicum provides a template of what it is to be a real teacher and opens a window into a world of teaching. Evans (2010) is very passionate about practicum and sums up her study by claiming that teaching is a “skill learned through apprentice-like activities rather than through the application of esoteric theories” (p. 198).

While agreeing with the views expressed by Evans (2010) I further believe that pre-service teachers should not be loaded with assignments and tasks to be completed during a practicum. This situation will enable the pre-service teachers to fully concentrate to fulfilling the requirements of the practicum.

Similar in context to MC practicums, The University of Western Australia offers a Rural Education Field Trip to its pre-service teachers as a mechanism for promoting familiarity with teaching in rural schools (Elaine, 2010). Rural teaching experience has been identified as fundamental to effective preparation of rural teachers as it provides real contexts to which they can apply and synthesise their course work. Findings from a longitudinal study using questionnaires revealed the field trip provided a rich learning experience by allowing pre-service teachers to apply their theoretical understandings to real world contexts (Elaine, 2010). However, organising such field trips has financial implications and needs to be planned in a cost and time effective manner.

A MC practicum is needed to support a teacher education program that prepares pre-service teachers for MC teaching. Generally stated, a practicum is the highlight of a teacher education program for most of the pre-service teachers. It “provides the opportunity to apply the principles of teaching and learning that have been studied during course work” (Barry & King, 1998, p. 35). The practicum is viewed as the central component of primary teacher preparation programs at teacher education institutions. While contemplating the role of teacher education institutions, Smith (2007) highly recommends practicums for pre-service teachers. She strongly believes that in order for pre-service teachers to understand how theory and practice are integrated in the “processes of teaching and learning to teach, we must provide opportunities for them to experience this integration throughout their teacher preparation programs” (p. 32). As such, practicum is seen as the most effective way of helping pre-service teachers to learn and to develop confidence and skills.

However, there are instances where practicum programs fail to provide pre-service teachers with opportunities to relate or apply ideas from teacher education programs (Love & Swain, 1980; Smith, 1980; Turney et al., 1982). Turney et al., (1982, p. 24) point to a number of earlier studies where pre-service teachers have “advocated a closer integration between theoretical and practical experiences”. The findings from the studies revealed that some of the issues raised by the pre-service teachers were “lacking of practical relevance, boring, repetitious and fractionalised” (Turney et al., 1982, p. 24).

In spite of flaws in the use of practicums, it is valid to assert that a MC program needs to have a supporting MC practicum. Pridmore (2006) believes that “in countries where there are many multi-grade schools, all trainees should be required to do some weeks of pre-service teaching practice in a multi-grade classroom” (Pridmore, 2006, p. 60). A practicum that supports the theoretical components of a pre-service teacher education program facilitates the implementation of relevant strategies. This requirement is currently being introduced in Finland where theoretical aspects of MC teaching are well established in the pre-service curriculum (Pridmore, 2006).

While agreeing with Pridmore (2006), Wilken (1996) states that most teacher education institutions emphasise the theoretical components in their teacher education programs. According to her, more emphasis should be placed on the professional teaching aspect as a lot of learning takes place in actual classrooms. MC practicums allow pre-service teachers not only to practise relevant strategies but to get acquainted with the reality of teaching. It enables them to gain insights into MC teaching and to “achieve a greater awareness of how school staffs can work” (Cornish, Hamer & Reed, 1994, p. 87).

To be successful, practicums require a number of conditions to be met:

*Support:* A successful practicum needs the support of different stakeholders to make it effective and practical. There are various issues or inputs that contribute towards a successful

practicum. Literature has also recognised the importance of these inputs during a practicum (Gordon, 2007; Morehead, Layman, & Foyle, 2003; Turney et al., 1982). Following are two of the common structures that support the successful implementation of practicum programs in teacher education institutes:

- i) *Support from mentors*: Pre-service teachers need support and guidance during their practicum. Generally this support comes from teacher educators and, especially, the associate teachers who are appointed as mentors. These mentors play a pivotal role in improving the performance of the pre-service teachers (Wakeford, 2001). They talk with the pre-service teachers about their learning and development, and consider them as “potential colleagues, and that they value the freshness and new ideas that they bring to the classroom” (Field, 1994c, pp. 40-41). This is an effective way of helping pre-service teachers learn and develop as successful teachers. The quality of learning and development is dependent upon the quality of the professional feedback and support provided by the supervisors (Barry & King, 1998).

Atputhasamy (2005) conducted research using surveys to explore the concerns and expectations of a cohort of pre-service teachers at the National Institute of Education in Singapore. Findings revealed that one of the areas in which help was considered most important was “related to the evaluation feedback on their teaching” (p. 8).

Feedback is most effective when it takes the form of a learning conversation between the pre-service teacher and the mentors. The learning conversation focuses on aspects of the work that have recently been observed. The feedback in learning conversations begins on a positive note and the esteem of the pre-service teacher is considered (Field, 1994a). Feedback is considered a form of encouragement rather than blame or negative judgment. Although they have a responsibility to correct the pre-service

teachers, “they want to have the skill to do this in as positive a way as possible” (Field, 1994b, p. 49). It is important to note that mentors provide critical support and guidance “by developing an affirmative professional relationship, supervising the intern’s work competently and evaluating progress” (Morehead et al., 2003, p. 9). Similarly, Barton (2006) believes that mentors should use achievements and mistakes to provide pre-service teachers “with focused and achievable targets” (p. 126).

Practical sessions and the modelling role of the associate teachers have the greatest influence on the pre-service teachers’ development (Dunne & Dunne, 1993). Their findings show that the support and guidance of both the supervising tutor and the class teachers were of utmost importance for the pre-service teachers’ development of management skills. Education establishments relied heavily on class teachers and their “goodwill, and the periods that student teachers spend in schools are thought to be vital to their development” (Dunne & Dunne, 1993, p. 135). Pre-service teachers learn a lot by observing and imitating other teachers. While pre-service teachers benefit from the mentors’ wealth of experience, the “constant refreshment that constitutes the professional development that student teachers can bring to their supervising teachers is a very valuable aspect of mentoring” (Field, 1994c, p. 41). Both parties, therefore, benefit from this learning experience.

Well informed teacher educators and associate teachers will provide better support by way of feedback and modelling to the pre-service teachers during their practicum.

- ii) *Support from Schools*: Schools are major stakeholders in the successful implementation of a practicum program. Therefore, it is vital to have a good functional relationship with the staff of a teacher education institution and school (Wakeford, 2001). It has been well documented that inadequate relationships and lack

of communication often lead to conflicting expectations for teacher educators, teachers and the pre-service teachers (Crozier, Menter, & Pollard, 1990; Turney et al., 1982). The willingness of a school to co-operate effectively in the practicum often depends on their perception that the relationship is mutually beneficial. To create the best relationship between school and pre-service teachers requires good dialogue and briefings by teacher educators.

According to Turney et al., (1982) there have been instances when teachers have stated they did not know anything about pre-service teachers' "courses prior to school practice and they did not have clear understanding of what was expected of them during the practicum" (p. 17). Some scholars have taken this a step further and suggested that "partnership needs to be transformed into dynamic alliance" (Crozier et al., 1990, pp. 44-45). Schools should be briefed about the nature of the practicum and their role in relation to expectations. Subsequently, schools could be recognised for their assistance and incentives could be given to the teachers participating in the practicum in the form of in-service courses and credit points for post graduate studies (Turney et al., 1982).

*A practicum guide* or program needs to be provided with explicit aims and objectives. The contents of the guide should be made clear so that it is supported by all the stakeholders (Edwards & Collison, 1996). A practicum guide clearly spells out the expectations from pre-service teachers, as well as teacher educators and associate teachers. Expectations from the pre-service teachers include the number of lessons to be taken and the competencies to be achieved. Effective instructional planning is the hallmark of excellent teaching. As such, having a practicum guide will enable pre-service teachers to plan their work appropriately using the lesson plan formats provided. Such a guide would also contain assessment forms

and illustrate the formative as well as summative performance of the pre-service teachers (Reid, 1994).

The above discussions present the various factors associated with organising a successful practicum. Although comprehensive information about MC practicums is unavailable, the inference is that many of the issues discussed about practicums in general are applicable to MC teaching situations. The following section discusses some of the instructional dimensions that underpin the very essence of MC teaching. The assumptions and concepts explored in the following section also relate to the conceptualisation of the research questions for this thesis.

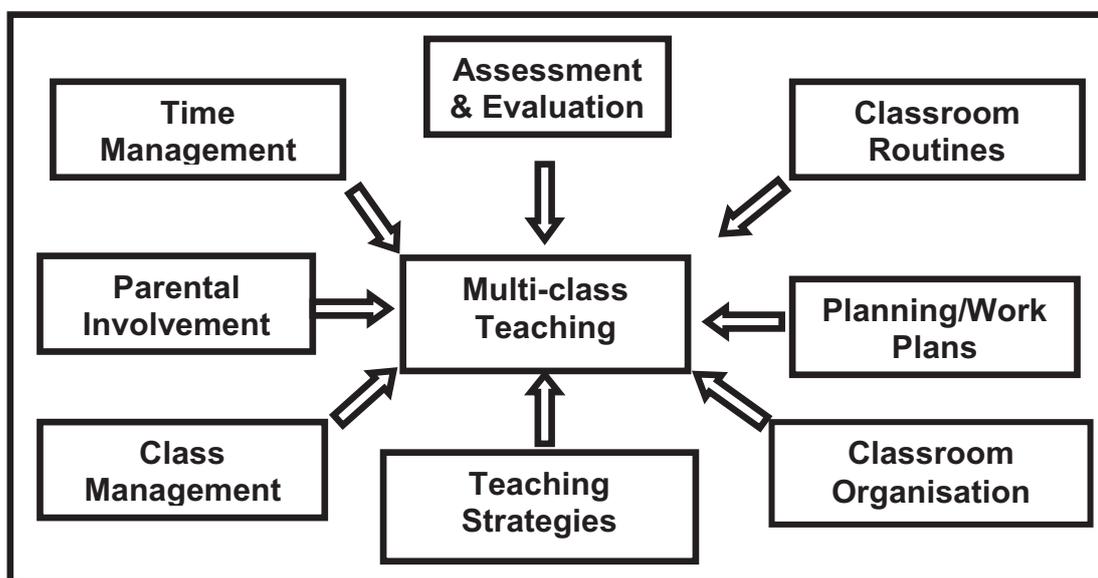
#### *2.4 Instructional Dimensions in Multi-class Teaching*

There are two important functions of the instructional dimensions in MC teaching: firstly they help in organising an effective learning environment for the children in their charge; and secondly they help in minimising the workload of the MC teachers. These two functions will be briefly addressed before discussing the respective dimensions.

MC teaching requires teachers to be resourceful and to take heed of various instructional dimensions. Instructional dimensions may be similar to straight class teaching but the content may be different. For example with regard to time management a straight class may have a full one hour for mathematics whereas in the MC context the one hour has to be shared between two or more classes. Similarly with regard to assessment in a straight class a single assessment task could be developed while in a MC context two or more assessment tasks have to be developed to take into account different curriculum materials. Conventional norms on time management and assessment are not always congruent with MC teaching situations and as such “need to be planned differently” (Little, 2007, p. 6).

Instructional dimensions support and sustain effective MC teaching environments. The instructional dimensions include classroom routines, planning, time management,

organisation of classrooms, class management, parental involvement and assessment (see Figure 2.1). Instructional dimensions consist of the curriculum, the pedagogies and aspects of classroom organisation. It is important to view the above elements in their entirety as they contribute holistically towards effective MC teaching. For example, a teacher sees the curriculum, prepares the lesson plan and organises the lesson. MC strategies are used to deliver the lesson, and these are then followed by assessment and discussion. In MC teaching, parents can play an important role, and at times act as ‘teacher aides’ and resource personnel. Parental participation is appreciated by teachers as, according to Ames (2007), “teachers certainly encourage parents to practise copying, dictation and multiplication with their children” (p. 61). In effect, instructional dimensions contribute towards organising an effective learning environment for the children.



*Figure 2.1.* Common instructional dimensions in multi-class classroom

There is not always a full awareness of the factors associated with instructional dimensions in MC teaching. For example, workload is a phenomenon closely associated with MC teaching. It has been widely recognised and accepted that teachers in a MC situation

have a higher workload than their counterparts in straight classes (Akker, 2010; Ames, 2007; Berry & Little, 2007; Hargreaves, 2001; Little, 2007; Maxwell, 2001; Miller, 1990; Ninnes et al., 2006; Phommabouth, 2006; Pridmore, 2006; Veenman, 1996; Vithanapathirana, 2010; Yembuu, 2006).

Veenman (1996) acknowledged the increased stress on teachers in MC classrooms in his response to Miller (1990) in which he shared findings from interviews with teachers in Holland. He concluded that teachers in MC classes seem to be less satisfied with their jobs than their counterparts in straight classes due to heavy teaching load (Veenman, 1996). Earlier studies by Brown and Martin (1989) in Canadian schools revealed that 80% of the teachers and principals preferred teaching straight classes over MC teaching. They claimed more work was required in MC teaching. It is not surprising that the increased difficulty of teaching in MC situations can lead to negative attitudes towards MC teaching by teachers. Berry (2007) fears that if issues regarding workload are not addressed properly, they “may lead to teacher demotivation and have a negative effect on pupil learning” (p. 31).

While there is still room for discourse, it can be reliably established that successful implementation of the instructional dimensions can greatly minimise the workload of MC teachers (Berry, 2007; Miller, 1991b). The various dimensions need to work in unison in order to effectively address the workload of MC teachers. The dimensions reinforce and complement each other to create an effective learning environment for the children and create a manageable workload for teachers. As such, issues regarding workload are silently visible in all the dimensions. Miller (1991a) in an earlier study considered classroom organisation and management, planning, self directed learning and instructional organisation as important dimensions in addressing the workload of MC teachers.

The dimensions discussed in the following sections have been considered by Berry (2007) as very significant to the MC teaching context. According to Berry, classroom organisation and management are constant themes common in MC teaching situations.

#### *2.4.1 Classroom Management*

Classroom management is a complex area as it encompasses the children, the environment, the context and all the happenings leading towards creating a platform for effective learning. Novice teachers usually find classroom management very difficult. According to Atputhasamy (2005), a study involving pre-service teachers revealed that 80% of them considered they needed more help in classroom management. The skills associated with effective classroom management are acquired with practice over a period of time. Case studies of two teachers implementing different classroom management styles revealed that “a teacher’s classroom management is greatly enhanced through an understanding of the degree of authenticity – coherence – in which he or she expresses his or her beliefs, goals, manner and methods” (Richardson & Fallona, 2001, p. 724). This means that for teachers to have effective classroom management, they need to have wisdom and apply appropriate organisational skills.

In regards to MC teaching, Berry (2007) stresses the importance of seating arrangements and space because he believes that “effective multigrade teaching should maximise opportunities for both independent work and for collaborative group work” (p. 30). In a MC situation, class management is a major area of attention as it includes physical management such as space organisation, seating arrangement, activity corners and ventilation issues (Collingwood, 1991) as well as teaching and overall class behaviour management. Classrooms need to be managed in such a way that appropriate spaces are available for free movement of children. The classrooms may be such that there are activity corners or learning

corners well set up. These arrangements enhance self-learning amongst students and this “has a positive influence on child development and learning of independent skills” (Yembuu, 2006, p. 101). Similarly, Ames (2007) affirms in her research that teachers in MC schools use various classroom management skills taking into consideration the different grades. There are many methods teachers in such contexts can employ when managing more than one class (Figure 2.2). Adopting a particular style of teaching is part of classroom management strategy because it shows how the classes are handled. For example, children can be taught simultaneously, separately or by a combination of both methods.

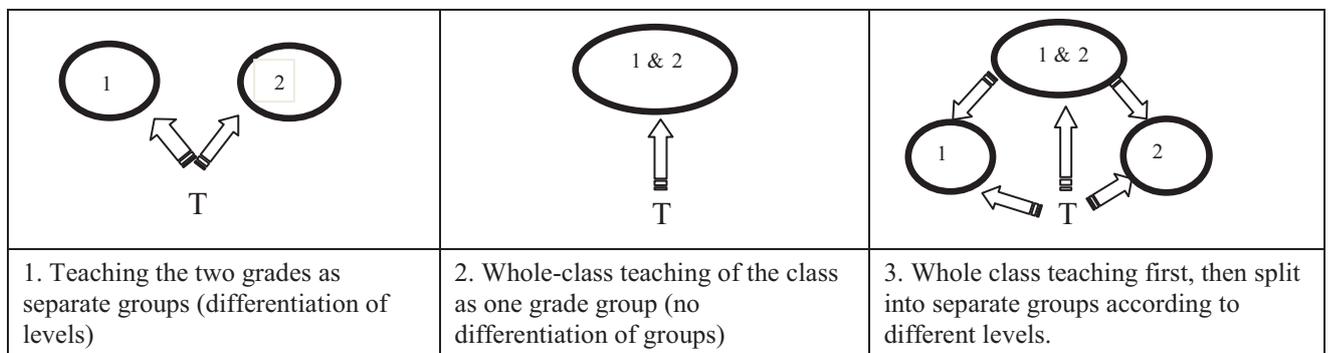


Figure 2.2. Managing a multi-class (Ames, 2007, p. 51)

A MC teacher needs to possess classroom management skills so that effective learning can take place despite having children from different grades. Hattie (2002) agrees with the preceding statement and strongly believes that the learning environment within the classroom is more powerful than any class composition effect. Pratt and Treacy (1986) also agree with the views of Hattie (2002) and stress that student excellence cannot be directly related to the vertical nature of classes, but could stem “from classroom organisation and management techniques” (p. 5). As such it can be concluded that irrespective of the way the classes are organised, it is the effective implementation of classroom management techniques that leads to better learning opportunities for the children (Hattie, 2002; Pratt & Treacy, 1986). While

these authors have referred to management issues in general teaching, their views are applicable in MC teaching situations.

There is no disagreement in the literature about the importance of classroom organisation and management techniques in both vertical and horizontal teaching arrangements. Consequently, teachers need to acquire these techniques for planning and teaching in such situations. It is normally understood that it is mandatory for teachers to plan in advance in order to provide effective learning experiences for the children.

#### *2.4.2 Planning for Teaching*

Planning is vital for effective teaching. Effective instructional planning is a hallmark of excellent teaching (Morehead et al., 2003). Planning for teaching in MC situations is more demanding considering the curriculum of the different classes in the classroom. A number of influential studies conducted in a range of contexts using interviews reveal that planning for MC teaching is more difficult than straight class teaching (Berry & Little, 2007; Mason & Burns, 1997; Pratt, 1986; Veenman, 1995). The major contributing factor to this situation, according to Berry (2007) is “the graded structure of the school curricula” (p. 31). The weight of evidence from the studies indicates the planning load teachers face in MC teaching is greater than for straight class teaching. However, it is through systematic planning that MC teachers are able to cope with the complexities of teaching in such situations.

Planning begins as teachers try to map out the lessons and the objectives they want to achieve. Planning enables teachers to decide “what” “when” and “how” to teach leading towards achievement of the desired lesson outcomes (Cornish & Garner, 2008). These aspects are closely linked to curriculum and a teacher’s philosophy and beliefs about teaching. Consequently, the lesson plans made in MC situations are usually more complex than those made in straight class teaching. Careful planning in MC contexts ensures that

“dead time” is minimised and the meaningful instructional time is maximised (Berry, 2007). This situation normally arises when teachers switch from whole class to group work or to individual instruction. Findings from a case study in a multi-age setting examining the teaching of numeracy revealed that “planning emerged as an important component of the learning experience in that it was directly related to the ways in which children could engage in learning activities” (Wood & Frid, 2005, p. 96). Effective planning is closely related to time, which leads now to a discussion on time management.

### *2.4.3 Time Management*

Time management is one of the most challenging and crucial elements in teaching (Morehead et al., 2003). Teachers at times feel “stretched to the limit” as they have to teach various subjects, cover the content areas and balance outdoor activities within a predetermined time frame. According to Morehead et al., (2003), considerable teaching time can be lost when teachers do not utilise effective strategies for organising information and tasks. Teachers need to prioritise their work and keep track of due dates and reminders. Good time management is essential to effective classroom teaching.

Time management is also one of the areas of concern in MC teaching. It is an important variable to be controlled and strengthened in schools as only advanced planning allows scope for covering the curriculum within the stipulated timeframe. Time management in MC teaching contexts should be emphasised during teacher education programs. Pridmore (2006) suggests that “more emphasis should be given to strategies that help teachers to make the best use of the time available to them and their students” (p. 61).

Preparing a flexible timetable is an important prerequisite to managing the MC situation with different curriculum materials for different year levels. Teaching more than one class at the same time with different curriculum materials together with administration duties,

compounds time management challenges in MC situations. As discussed earlier, children in a straight class can work on an activity for a full one hour while in a MC context the time is shared between two or more classes:

It is estimated that children in each grade in multi-grade classroom work for about half as many hours as children in the equivalent grade in a mono-grade school. Proper management of time by the teacher and pupil is therefore essential to maximize the efficiency of the limited time that is available (Hargreaves, Montero, Chau, Sibli, & Thanh, 2001, p. 512).

The summary statement by Hargreaves et al (2001) clearly show the importance of time management in a MC context. This is because teachers in MC situations often run short of time and later they have to rush to cover the curriculum.

Suzuki (2007) tries to justify why MC teachers fail to manage their time appropriately in MC situations. She believes that it is due to the “gap between their own multigrade reality and the universal monograde norm” (p. 94). Teachers avoid MC teaching by teaching the classes separately using their respective curriculum materials. The time is divided into two equal proportions and each class is taught separately, as if there were two straight classes. However, if teachers employ MC strategies effectively, time management will not be a major issue in MC teaching. While the rigidity of the curriculum and mandatory coverage of the syllabus within restricted time frames forces teachers to compromise MC teaching, the successful implementation of MC strategies can be a way forward to addressing the problem to a large extent.

#### 2.4.4 *Multi-class Teaching Strategies*

A teacher in a MC situation does not only deal with two or more classes but also with children having different ability levels, interests and experiences within these classes. The lessons prepared need to be well differentiated in order to meet the needs of individual children. A MC teacher needs to be very resourceful and have readymade differentiated activities for different groups. Moreover, “independent work is positively encouraged in the multi-grade setting” (Berry, 2007, p. 41). As such the role of a teacher in MC learning context includes that of a facilitator. Facilitating involves “creating rich environments and activities for linking new information to prior knowledge and offering students a multiplicity of authentic learning tasks” (Hales & Tarasomo, 2006, p. 76).

However, the reality of the situation is often quite different as teachers try to implement straight class pedagogies in MC situations. Children even sit according to their classes in rows which is a typical feature of straight class teaching (Berry, 2007). Teachers mostly fall back on straight class pedagogies due to lack of education and information on MC pedagogies. They feel confused and also lack the confidence because they get limited guidance in the field (Ames, 2007). Berry (2007) supports the views of Ames (2007, p. 32) that “multigrade teachers tend to teach grade by grade. They deliver instructions to one grade while the other grade(s) is engaged in seatwork. Then, they switch attention to the other grade when they have finished” (p. 32). This scenario is quite common in many MC teaching contexts (Ames, 2007; D. Pratt, 1986; Veenman, 1997). While these pedagogies have been successfully implemented, there are other pedagogies that are applicable to MC teaching situations.

*Collaborative learning* can be a successful teaching strategy using group work. It involves children working together to improve their understanding. Each member of a team is responsible not only for learning what is taught but also for helping teammates learn, thus

creating an atmosphere of achievement. Children work through the activities helping each other to successfully understand and complete the task (Killen, 2003). In addition, there are many types of grouping, such as ability grouping and mixed grouping. Groupings are not always fixed and depend upon the “purpose of the learning activity” (Cornish, 2006, p. 36). Collaborative learning is a common strategy used by teachers in MC situations (Little, 2007; Pridmore, 2007).

Drawing from previous research on MC teaching, Little (2007) has identified four pedagogical approaches to curriculum organisation for MG classrooms. These strategies are also applicable to straight class teaching and cater for differentiation of materials to learners’ abilities. The strategies are as follows:

- *Multi-year curriculum spans*. Units of curriculum content are spread across two or more grades rather than one. All learners work through common topics and activities.
- *Differentiated curricula*. The same general topic/theme in the same subject is covered with all learners. Learners in each grade group engage in learning tasks appropriate to their level of learning.
- *Quasi mono-grade*. The teacher teaches grade groups, in turns, as if they were mono graded. Learners in each grade follow the same or a different subject at the same time. Teachers may divide their time equally between grade groups. Or they may deliberately divide their time unequally, choosing subjects or tasks within subjects that require different levels of teacher contact.
- *Learner and material centred*. This strategy depends more on the learner and learning materials than on teacher input. The curriculum is translated into self-study graded learning guides. Learners work through these at their own speed with support from the

teacher and structured assessment tasks. Learning is constructed as involving a relationship between learner, learning materials and teacher (Little, 2007, p. 310).

Berry (2007) concurs with the above strategies and reports that, in the Turks and Caicos Islands, teachers teach Mathematics and English using a grade by grade approach but use a whole class approach for science subjects. The underlying principle as to which strategy to employ in a MC classroom depends upon the school, the teacher, the learner and the curriculum diversity. Strategies are a link in a chain of curriculum decisions and manifestations between the national and the school levels where actual implementation takes place.

Cornish (2006) is an advocate of multi-age teaching and states that some multi-age teaching strategies can be used in MC situations. However, she points out that it is not realistic to adopt the multi-age practices directly in MC situations as “the contextual factors cannot be ignored” (p. 44). Teachers need to undergo MC education, have relevant resources, develop a supportive network and be optimistic about MC teaching. Teachers need to believe in themselves as well as in the good of MC teaching in order to successfully implement the strategies. Following is a list of multi-age strategies that can be adapted to MC teaching contexts:

- Curriculum integration and/ or teaching in themes;
- Spiral curriculum (whole school planning);
- Curriculum rotation (multi-year curriculum spans);
- Open-ended activities;
- Frequent and flexible groupings;
- Development of routines and practices that encourage independent learning and taking responsibility for one’s own learning;

- Peer tutoring;
- Authentic assessment;
- Parent/community links and
- Team teaching (Cornish, 2006, p. 28).

Whilst the implementation of the above strategies in MC situations is viable, teachers need to be encouraged and supported along the way. Teachers also need to have ample knowledge and skills in order to implement the practices effectively. For example, classroom observational studies reveal that just employing “multi-age grouping did not support learning. Rather, effective learning was dependent upon teachers’ capacities to develop productive discussions among children” (Wood & Frid, 2005, p. 80). Gordon (2007) supports the views expressed by Wood and Frid (2005) and believes that teachers who have the “flexibility to change their agendas and methods of instruction and create exciting learning environments have much greater chance to motivate their students” (p. 130). Teachers need to create learning environments designed to stimulate and foster effective learning experiences for the children (Gordon, 2007; Hattie, 2002; Mason & Burns, 1997; Pratt & Treacy, 1986).

There are many pedagogical approaches that can be applied in MC teaching situations (Berry, 2007; Pridmore, 2007). Discourse on MC teaching does not pinpoint a particular pedagogy as most effective but calls for flexibility in combining a number of strategies and pedagogies depending upon the key learning areas (Collingwood, 1991; UNESCO, 2001). Pridmore and Vu (2007) state that it is unlikely that any single pedagogy can make a significant change in student learning in MC contexts because synergy is required between all of the different components.

#### 2.4.5 *Assessment and Evaluation*

Assessment is another important instructional dimension that teachers need to consider when teaching in MC situations. Tests are not seen as the only means of assessment in MC situations. Meaningful observation during group activities and problem solving activities can be part of formative assessment. Optimistically, MC offers a flexible learning environment where children are not forced “to proceed at a pace beyond their capacity and readiness” (Hargreaves et al., 2001, p. 25). This arrangement enables children to proceed at their own pace and there is more opportunity for individualised learning.

The subject of assessment in MC teaching has attracted little empirical attention, however studies reveal that it is a complicated and difficult task (Berry, 2007; Hargreaves, 2001; Little, 2007; Mason & Burns, 1997). According to Berry (2007) it is the straight class model that dictates the assessment procedures in MC situations. In his study, he found that teachers were preparing two sets of examination papers for the term tests, thus increasing their workload. Pridmore and Vu (2007) reached similar conclusions in their study on challenges to MC teaching in Vietnam. The teachers there had to “meet the annual assessment targets that in practice are still overly concerned with graded learning objectives” (p. 185). The goals of assessment should be to help students learn rather than just testing the coverage of the curriculum or certification.

The assessment procedures in MC may be similar to those of straight classes but their content and layout are usually different. For example, when preparing a written test, one has to consider that there is more than one class and two separate tests have to be developed (Berry, 2007). Moreover, it will also depend upon the strategy used by the teacher. If the teacher is using curriculum rotation, then one test paper will be reasonable. However, if the teacher is using a grade-by-grade (quasi mono-grade) strategy, then obviously two different sets of test papers will be prepared.

Fortunately, Hargreaves (2001) addressed the issue of assessment in MC teaching in an exceptional manner. She explored some approaches that could be implemented in MC situations. She suggests that assessment for learning is a more appropriate model of assessment for MC teaching situations and that teachers in MC situations should facilitate individual responsibility for learning. Research evidence also suggests that an assessment has higher validity when the purpose is clear to the learners (Frederikson & Collins, 1989). Teachers in MC situations can train children to critique each other's work and apply the judgments to their own work against "clearly described learning intentions and achievement criteria" (Hargreaves, 2001, p. 555). With a bit of training children will be able to mark each other's work and provide appropriate feedback. This would also help in reducing the workload for the teacher who can just check and initial the work of the children upon completion of the corrections.

Teachers in MC situations can use a number of alternative assessment procedures apart from written tests. The techniques of interviewing, observation, student portfolios, self-assessment and cooperative assessment are seen as integral components of the teaching-learning process that help students to become more proficient in demonstrating their knowledge through critical thinking and better understanding (Carr, Peters, & Young-Loveridge, 1994). According to Hargreaves (2001) teachers in MC teaching situations could use different learning tasks with assessment potential. In her article "Assessment for learning in the multigrade classroom" Hargreaves (2001) discussed in detail how open-ended activities could be effectively used in MC teaching situation. Morehead et al., (2003) also endorse the idea of employing various assessment tasks. However they caution that "paper-and-pencil assessment should be part of any plan but must not be the sole manner in which a teacher assesses student learning" (Morehead et al., 2003, p. 67).

In order to effectively implement assessment processes in MC situations, there needs to be relevant assessment reforms. Teachers also need to be educated because the emphasis has to “switch from training in examination preparation and routines to training in the full range of assessment possibilities” (Hargreaves, 2001, p. 556). Training, guidance and exemplification are necessary if teachers are to be able to pursue the assessment possibilities that would benefit the learning of their children in MC teaching situations. Thus it may appear at first that assessment in the MC is the same as assessment in a straight class but the actual dynamics depend upon the teaching strategies being implemented by the teacher. Assessment and evaluation in the MC context is a complex area.

#### *2.4.6 Parental Involvement*

Bearing in mind the remote locations of MC schools and scarcity of resources, parental engagement can be vital to providing a conducive learning environment for children. Collingwood (1991) believes that parents and school communities play a very important role in effective management of MC schools. There may be “talent tanks” in the community that could be tapped when in need. Cornish (2006, p. 41) further elaborates on the issue by stating that “parents and community members can often provide rich information to support students’ exploratory learning” by being guest speakers and helpers during excursions and group activities. Thus, good relationships with the parents and local communities would assist teachers in the smooth running of the affairs of the school.

Teachers in most MC teaching situations become part and parcel of the community they serve. Teachers are viewed with respect and are included in the affairs of the community. Menon and Rao (2006) argue that teachers in a MC situation are rooted in the community which enables them to “draw upon local resources and to create local specific materials to supplement the common educational materials” (p. 169). The views expressed by Menon and

Rao (2006) are very relevant to the Fiji context. This is because apart from teaching, MC teachers in Fiji join community choirs, youth groups, advisory councils and other community organisations (Ali, 2004). Often members from mothers clubs raise some funds for the schools while the male folks help to maintain the school compound and surroundings. Parents also help by providing improvised teaching aids and resources requested by the teachers. In this regard, Cornish (2006) agrees that “in rural multi-grade classes, strong parent and community support are common” (p. 41).

The picture that emerges from the conceptualisation of the different instructional dimensions is that MC classrooms are potential sites for innovative instruction and learning (Berry,2007). The various dimensions of MC teaching complement each other in making learning meaningful to the children. The following section presents the future scope for MC schooling in the world.

### *2.5 Future Directions for Multi-class Schooling*

MC teaching situations are the norm in many countries. They are a matter of necessity in both developing and industrialised nations of the world. MC teaching is implemented for a number of reasons. Some of the reasons stated by Collingwood (1991) include shortage of teachers, lack of trained teachers, shortage of classrooms and small school populations in remote areas. Little (2003) states that:

Multi-grade schools will exist in most Commonwealth countries for the foreseeable future. Indeed, in some countries the expansion of multi-grade schools may be the only strategy that can be adopted for the achievement of universal *access* to primary education (pp. 14-15).

There are various discourses that support the views of Little (2004) and identify MC schools as the only means of achieving EFA in rural and remote areas in the predictable future.

MC schooling occupies a particularly significant position in trying to improve the quality of education in rural areas. Schools with MC teaching situations will remain an important organisational form in many suburban and rural areas in the world. Despite lack of national policies and support, MC schooling has been existing and serving children in many disadvantaged communities all over the world. Over time, governments and policy makers are beginning to recognise the importance of MC schooling, and have started incorporating reforms. Aspects of MC teaching pedagogies are slowly finding their place in pre-service and in-service teacher education programs.

The foreseeable future for MC schooling is that people's negative perceptions will change because of increased research evidence that "MG classes are no better and no worse than mono-grade classes in terms of student achievement" (Pridmore, 2006, p. 54). Research into the effects of MC and straight classes on achievement of children has consistently confirmed this finding (Bray, 1987; Miller, 1991b; Veenman, 1995). My personal experience as a MC teacher in Fiji is similar to the findings of Veenman (1995) where "one may conclude that students in multigrade classes learn as much as their counterparts in single grade classes" (p. 350) and at times more.

MC schooling is inevitable, and will continue as a means of serving millions of children in the world. With a prospect to enrich and inform straight class schooling and establish an equal platform for academic excellence, MC has established its place in educational history and has a perpetual future. Being a global phenomenon, MC requires better understanding and support from all stakeholders. In summarising his research regarding the economic viability of MC schools, Lewin (2007) states that:

Multi-grade is best seen as part of a package of interventions that could improve access, efficiency and quality across all schools. It will develop alongside mono grade. It has real potential which is underutilized, under promoted and under developed. It is a way forward that cannot be neglected (p. 262).

The above summary statement by Lewin (2007) clearly spells out the potential of MC teaching as a way forward. A considerable body of evidence has been provided which indicates that MC will remain a reality in future. As such, there are far reaching implications for preparing teachers for MC teaching as all stakeholder communities need to be involved because MC teaching was, is and will be around as a means of providing basic education to the children of the region and beyond. MC is a present practicality and future reality.

#### *2.6 Summary*

This chapter has discussed in detail some of the issues that have a direct impact on teacher education and the teaching and learning process in MC situations. The prevalence of MC teaching was discussed followed by a discussion of the teacher education needs with a comprehensive look at the instructional dimensions and pedagogical issues related to teaching in MC situations. The chapter concluded by highlighting some of the future directions for MC schooling in the region and beyond.

The following chapter presents an overview of the MC Program at the Teachers College as it provided the context for this thesis.

## **Chapter 3: The Research Context**

### *3.1 Introduction*

This chapter discusses the context of the study and presents a brief outline of the MC program that is being offered in the second year of the Diploma in Primary Education Program at the Teachers College of Fiji. The program will also be offered in the new Bachelor of Education Degree program from 2011. The context of education in Fiji and a brief background of the Teachers College, which has become the part of Fiji National University (FNU), are also discussed. This is followed by an outline of the content of the MC Unit and the requirements of the associated practicum.

### *3.2 Background*

Education is generally accepted today as a basic right and a fundamental pre-requisite for sound economic development (Pene et al., 2000). Fiji has experienced four coups in the last 20 years and has come to a critical stage where education is perceived as an instrument to increase the welfare of present generations as well as creating the circumstances for increasing the welfare of future generations. Educational reforms are also taking place because of the belief that education may be an effective tool for fostering better understanding amongst different Fijian communities (Bole, 2008). Basic education is regarded as the cornerstone of social and economic development. The early establishment of primary schools by both the indigenous and migrant communities is evidence of the importance these communities place in basic education for their children.

Education is seen as an indispensable asset as Fiji attempts to attain the ideals of peace and understanding leading towards a renewed commitment to national unity, social cohesion and political stability (Ministry of Education, 2002a). Owing to an understanding of the

importance of education, villages and settlements in Fiji have established their own schools, even in the remotest of locations, to cater for not only general education but also the cultural and religious education of their children (Bray, 1987). These schools allow easy access for the parents to send their children to a school near to their homes. Rural families are often not able to send their children to urban schools for economic reasons. Setting up small community schools is also a reflection of the commitment of the people of Fiji to the education of their children. Parents take great pride in their schools and put enormous effort and resources into building schools.

Small MC schools were set up to provide basic education for rural and remote children (Pene et al., 2000). The main reason for the setting up of MC schools was the geographical location of the early settlements. The report of the Fiji Islands Education Commission 2000 (Pene et al., 2000) states that small schools with MC teaching situations were unavoidable as most of them were in the islands and in rural areas serving small student populations. The report further indicates that there is no other practical way to organise schools and so they will remain the norm in remote rural areas. It is envisaged that more schools in future will have a MC arrangement due to the expiry of land leases and the migration of people to urban centres, further reducing the rural population and making straight class schools less viable.

### *3.2.1 Population and Distribution*

Fiji is located in the centre of the Pacific Ocean below the equator (Fiji Islands Bureau of Statistics, 2010). Fiji is formally known as the Republic of Fiji. There are over 300 islands with a total land area of 18,333 square kilometres spread over about 1.3 million square kilometres of the South Pacific Ocean (Fiji Islands Bureau of Statistics, 2010). Viti Levu is the largest of the 300 islands and about 76% of the population lives on it. A further 18% of the total population lives on Vanua Levu, which is the second largest island of Fiji. The

remaining (6%) population is dispersed over smaller islands (Fiji Islands Bureau of Statistics, 2010). The scattered nature of the islands, as shown in Figure 3.1, impedes the availability of certain vital services and facilities for education, such as the sending of educational forms such as teachers' monthly absence returns that need to be filled and returned by due dates.

Reforms are taking place in Fiji on many social fronts and spheres. For example, the indigenous people are now known as the 'I-Taukei' while the term, "Fijian" is used for all the citizens of Fiji (Bainimarama, 2010). According to him a common name for all, 'Fijians' provides a sense of identity and belonging, "because as one people, we are one nation with a common vision based on love and care for one another" (Bainimarama, 2010). Recognising this terminological norm, I will use the term 'I-Taukei' when writing about the indigenous people of Fiji in this thesis.

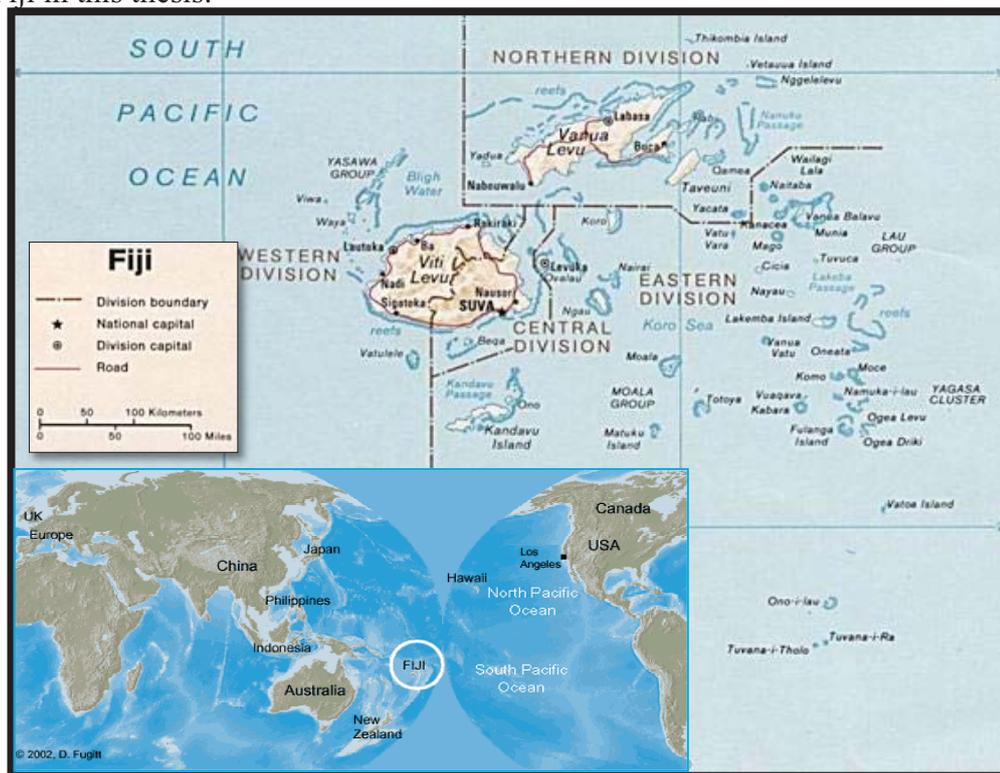


Figure 3.1. Map of Fiji (Courtesy of the Ministry of Education, 2010a)

Fiji has a tropical climate, as such it does not have very cold or very hot weather. The islands often experience tropical cyclones, especially during the months of November to April. For the cooler months (May to October), the temperatures are usually 22 degrees

Celsius while the temperature increases during the months of November to April (Fiji Islands Bureau of Statistics, 2010). There are also periods of heavy rainfall during the months of November to April and floods occur in low lying areas. (Fiji Islands Bureau of Statistics, 2010).

The population of the Fiji Islands after the 2007 census was 837,271 with two major races, I-Taukei and Indo Fijians. The majority (57%) of the population are I-Taukei while less than half (38%) of them are Indo Fijians (Fiji Islands Bureau of Statistics, 2010). Fiji is also home for Europeans, part Europeans, Chinese and other races, most of who live largely in urban centres. Indo Fijians living in rural areas are mainly sugar cane farmers and live mostly on the western side of Viti Levu and along the north coast of Vanua Levu (Fiji Islands Bureau of Statistics, 2010). Figure 3.2 shows the population of the different races of people living in Fiji.

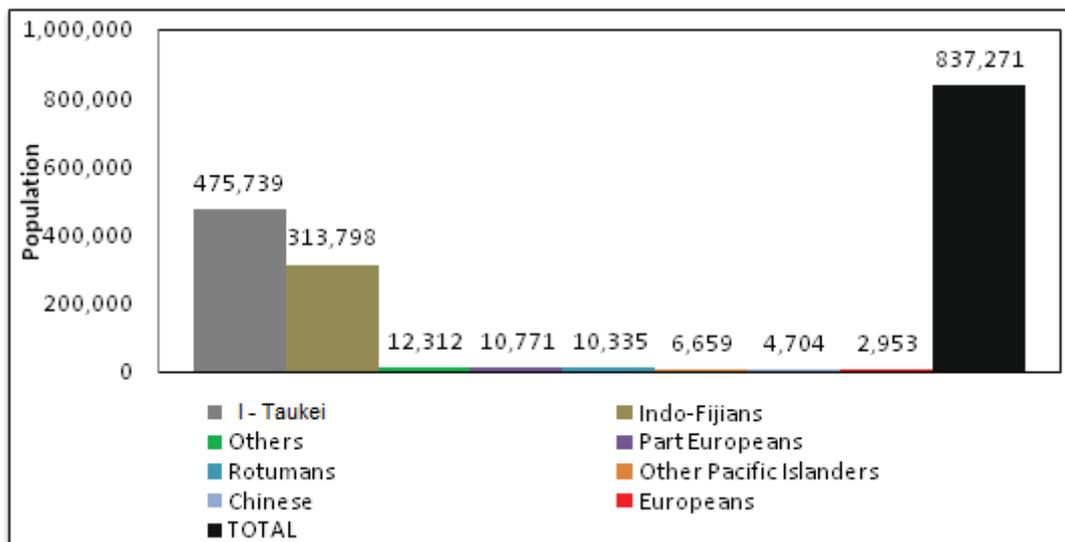


Figure 3.2. Population of Fiji islands (Fiji Islands Bureau of Statistics, 2010, p. 5)

I-Taukei are evenly spread over rural areas, along coastal villages and across the small islands. They like living in villages, and mostly have a communal way of living and share a rich cultural heritage (Fiji Islands Bureau of Statistics, 2010). Indo-Fijians also consider Fiji

as their home as most of them have been born here. Most of them are descendants of labourers who were brought to the country by the British from India (Fiji Islands Bureau of Statistics, 2010). About 60 % of the population in Fiji live in rural areas and mostly depend on subsistence farming. English is the official language but most of the people speak in Hindi and Fijian. These vernacular languages are also taught in schools as part of the school curriculum (Fiji Islands Bureau of Statistics, 2010).

A long-running conflict between the government and military of the Republic of the Fiji Islands over certain divisive and controversial policies reached crisis point in early December 2006. Voreqe Bainimarama, the Commander of the Fiji Military Forces, took control of the government as executive authority in the running of the country. On 5<sup>th</sup> January 2007, Voreqe Bainimarama was formally appointed as the interim Prime Minister of the Republic of Fiji. On 10<sup>th</sup> April 2009, the constitution was revoked and since then the country has been governed by decrees based on the “People’s Charter for Change, Peace and Progress”, which aims to rebuild Fiji into a non-racial, culturally vibrant and truly democratic nation (Government of the Republic of the Fiji, 2010). The permanent secretary for Information states that “our common purpose is to build a better Fiji for all without exceptions or differences because we are also moving Fiji forward” (Bainimarama, 2010, p. 1).

The current Government consists of about 22 ministries that conduct the affairs of the government. A minister heads each department and is responsible to the Parliament for its activities. Ministries are staffed by a career-based public service, whose members do not relinquish their jobs at the change of government. The Public Service Commission (PSC) is responsible to the Government for the efficient and effective management of the Public Service, and the formulation of policies and practices.

### 3.2.2 Context of Education in Fiji

The historical perspective of primary education shows that even when Fiji was a British colony there were small village schools. Most were managed by the Methodist Church with a few by the Roman Catholic Church (Pene et al., 2000). What is known as the ‘Girmit’ period saw the arrival of Indians from India from 1879 to 1916. Eventually more primary schools were established by the religious organisations of the Indians such as the Sangams and the Muslim League. These organisations laid the foundation for the active involvement of the communities in the education of their children. In addition, the Fiji Government began to progressively put compulsory education into practice to ensure children had access to basic education (Pene et al., 2000). Table 3.1 shows the number of primary schools managed by different organisations in Fiji.

Table 3.1  
*Management of Primary Schools in Fiji. Adapted from (Pene et al., 2000, p. 27)*

Controlling Authority	Number	Percentage
Committees	529	74.0
Religious organisations	130	18.2
Cultural organisations	36	5.0
Special education societies	14	2.0
Private	4	0.6
Government	2	0.3

Primary schools in Fiji are scattered all over the small islands and deep into the remote areas of the highlands of the two main islands, Viti Levu and Vanua Levu. Nearly 80% of primary schools are classified as rural schools with about 38% classified as very remote (Pene et al., 2000). Accessibility to the different parts of the country is difficult due to the mountainous nature of the country and inadequate road conditions.

Both indigenous and migrant communities have upheld the importance of basic education for their children. Migrant communities view education as a means of preserving

their languages, traditions and various cultural obligations. The Methodist Church, Sanatan Dharam and Fiji Muslim League are some of the religious organisations that set up their schools in order to preserve their identity and their respective cultural beliefs (Ali, 1981). The schools in predominantly Indian settlements are managed by the different religious organisations. Although the early settlers from India who came as indentured labourers, known also as Girmitiyas, were mostly illiterate, they realised the importance of education. According to Lingam (2004), “the demand for education led to the establishment of small primary schools to serve the clientele in rural areas and therefore primary schools are found in very remote settlements” (p. 15). These schools still operate because of the demand for education by the various communities.

The I-Taukei living in villages also set up schools. The small village schools enabled the children to gain basic education apart from religious and cultural education. Village schools also gave a sense of identity to the villages and villagers took pride in looking after the schools. As well as for educational purposes, school buildings are used as meeting places for elders and the school amenities are generally utilised for the betterment of the whole community (Thomas & Postlethwaite, 1984).

Most remote schools cater for primary school education (ages 6 – 12) and have MC teaching conditions as well as boarding facilities. The existence of these schools is considered as bringing education “closer to clients” and being “client oriented”. Many primary schools located in rural areas have only a small number of students. In 1998, there were 225 rural schools with enrolments of fewer than 100 children with MC classes (Pene et al., 2000). Table 3.2 shows the location of primary schools in the different education districts. The statistics show that more than 77% of primary schools are rural schools and a common feature of these schools is that they mostly have a MC teaching context.

Table 3.2  
*Location of Schools in Fiji.* (Pene et al., 2000, p. 162)

District	Rural Category*			Urban Category*			
	1	2	3	1	2	3	4
Nausori	47	38	12	-	-	4	10
Suva	07	07	09	12	24	18	03
Nadroga/Navosa	17	29	07	-	-	-	06
Lautoka/Yasawa	31	07	12	09	06	06	13
Ba/Tavua	32	12	01	-	-	-	18
Ra	03	23	08	-	-	-	07
Eastern	01	02	106	-	-	-	05
Bua/Macuata	17	46	21	01	-	-	09
Cakaudrove	03	22	34	-	-	-	05
Total	159	188	213	22	30	28	80
*Categories code							
Number	Rural category			Urban Category			
1	10 – 20 km from town boundary			City metropolitan			
2	≥ than 20km from town boundary			City suburban			
3	Very remote school			Peri-urban			
4	-			Town area			

Education in Fiji is provided through a partnership between the Government and school communities (Ministry of Education, 2010a). The Permanent Secretary (PS) is based at the central office in Suva and heads the education section of the administration. The country is divided into four managerial divisions based on geography to enable good coordination of administrative matters; they are known as the Eastern, Western, Northern and Central divisions. Each of the divisions in the primary sector is managed by Divisional Education Officers who report to the Director Primary (DP). These education divisions are further divided into nine education districts (Figure 3.3: Ba/Tavua, Lautoka/Yasawa, Nadroga/Navosa, Suva, Nausori, Bua/Macuata, Cakaudrove and Eastern – which manages the whole of Lau, Rotuma, Kadavu and Lomaiviti. These are the districts that appear in the key in Figure 3.3.

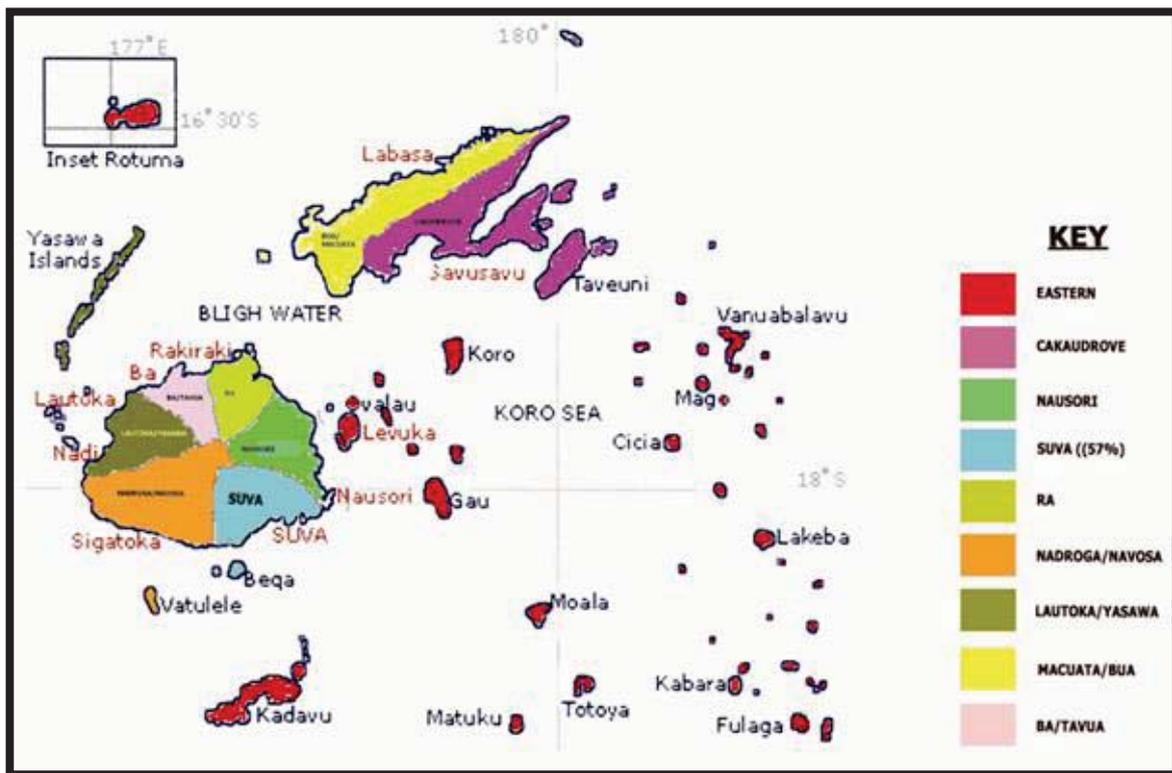


Figure 3.3. Fiji education districts (Ministry of Education, 2010b)

The District Education Offices comprise a Principal Education Officer, a Senior Education Officer, and two Education Officers. Head teachers assisted by assistant head teachers and executive teachers carry out the administration of the primary schools. The MOE provides an annual per capita grant of \$30 per child to school committees, and parents contribute financially to support the management of the schools. However this is greatly discouraged by the government as it also provides building grants to needy schools. Teachers implement the policies of the MOE in liaison with school management who are recognised as equal partners in the delivery of education in Fiji's primary schools (Pene et al., 2000).

Local school committees manage the general welfare of schools while the MOE provides teachers. There are currently 715 (excluding pre-schools) primary schools in Fiji staffed by over 5600 teachers located throughout the country (MOE, 2002a). Table 3.3 shows the distribution of primary schools (including pre-schools) in Fiji with MC teaching arrangements.

Table 3.3  
*Multi-class Schools in Different Districts.* (Ministry of Education, 2009, p. 70)

Division	District	Total number of Primary Schools	Schools having MC teaching situations
Central	Nausori	117	56
	Suva	85	20
Eastern	Kadavu and nearby islands	115	88
Northern	Cakaudrove	65	35
	Macuata/Bua	97	46
Western	Ba/Tavua	62	30
	Lautoka/Yasawa	82	26
	Nadroga/Navosa	60	27
	Ra	41	23
	TOTAL	724	351

All education districts have MC schools but the eastern division has the most. Thus all teachers should be able to employ MC teaching strategies. Primary education is regarded as the cornerstone of development and ultimately leads to the preparation of quality primary teachers who are able to meet the demands of the teaching profession.

Fiji has a centralized curriculum system. The curriculum developers within the MOE in Fiji develop the curriculum known as National Curriculum Framework (NCF) with assistance from various stakeholders in education. The NCF document is structured in such a way that it sets out the philosophy and structure for curriculum from early childhood to form seven (Ministry of Education, 2007). This document provides opportunities to children to become independent and collaborative learners where their prior knowledge is recognised. Continuous assessment is an integral aspect of the NCF as students have a set curriculum to cover in a given year. Even many MC schools employ straight class pedagogies and follow one curriculum for both the classes. This approach is known as even/odd and is a common feature of many MC schools in Fiji.

### 3.2.3 *The Teachers College*

The Teachers College, which provides the context for this study, has undergone many changes since its inception in 1929. It has an evolving history of teacher education, from simply training licensed teachers to the current pre-service teacher education programs. Major infrastructural developments have taken place along the way, and the first cohort of 132 residential students was enrolled in 1978 (Short, 2004a). In 1983 the College became the main centre for all Government-sponsored students enrolled in the two-year pre-service teacher education program. The College has benefitted from a number of development projects such as Basic Education Management Teacher Upgrade Project (BEMTUP) in 1997 and the Lautoka Teachers College Upgrade Project (LTCUP) in 2003.

During LTCUP, occurring between 2003 and 2006, the Australian Government contributed about five million dollars towards curriculum development, staff professional development, teaching and learning resources, library resources and technical support in information technology. The project was intended to enhance the preparation and effectiveness of early childhood and primary teachers in Fiji by strengthening the quality and relevance of teacher education programs at the Teachers College. Consultants were hired as part of the project, and new teaching materials were developed for the Diploma in Primary Education and Advanced Certificate in Early Childhood Education. The curricula developed went through an accreditation process. Staff training programs were held in relevant subject areas for implementation of the curricula and procurement of instructional materials. Lecturers also received relevant technical training in operating and handling IT equipment, and library management. The development of the MC preparation program was a major part of the above project. The new programs officially began in 2006.

Major organisational and managerial changes have also taken place at the College during the time in which the research for this thesis was carried out. On 30<sup>th</sup> October 2009,

the Government of Fiji changed the status of the Teachers College by making it part of the School of Humanities of the Fiji National University (FNU) through the promulgation of a Decree (Government of the Republic of the Fiji, 2009a). Now all primary and secondary teacher education programs are offered from one place and there are plans to start offering a degree program in teacher education with effect from 2011.

### 3.3 *The Multi-class Teacher Preparation Program*

The development of the MC program was a direct result of the upgrading project discussed earlier. A consultant was hired by the Australian Agency for International Development (AusAID) under whose guidance and leadership the MC teacher preparation program was developed. An executive summary of the consultant's report stated that:

The priority for this input has been the development of the draft course (unit) *DPE 230, Facilitating Teaching in the Multi-class Classrooms*. Supplementary to this task has been the planning of a resource package for use by teachers in remote, rural multi-grade settings and the design and preparation of professional development packages in assessment methodologies to be implemented across all DPE courses in 2006 (Bingham, 2005, p. 6).

The Course Book developed as the text to be used in the MC program is known as *DPE 230, Facilitating Learning in the Multi-class Classrooms*. DPE stands for Diploma in Primary Education while 230 stipulates that students are in their second year (2) semester 3 (3). The last digit shows that the unit is a new unit and has not been covered earlier in any form. The Course Book, together with lectures and tutorials and workshops, is known as a MC Unit, while the unit and with the practicum together, they form the MC program (see Figure 3.4).

The MC program aims to assist pre-service teachers to develop understandings of MC teaching strategies and be able to demonstrate them during the practicum. This program also provides pre-service teachers with the opportunity to develop the knowledge and skills necessary to interpret curriculum prescriptions and apply them in a practical manner when planning in MC settings. The program is structured in such a way that it has a direct connection with the practicum. The expectation is that, upon completion of the MC preparation program, pre-service teachers will be able to:

develop understanding and appreciation of issues related to multi-grade schools and appropriate strategies and techniques specific to teaching in a multi-grade classroom (Bingham & Waisale, 2005, p. 5).

The term “multi-grade” is used because it is a quotation and it is the term used in the text book (Bingham & Waisale, 2005).

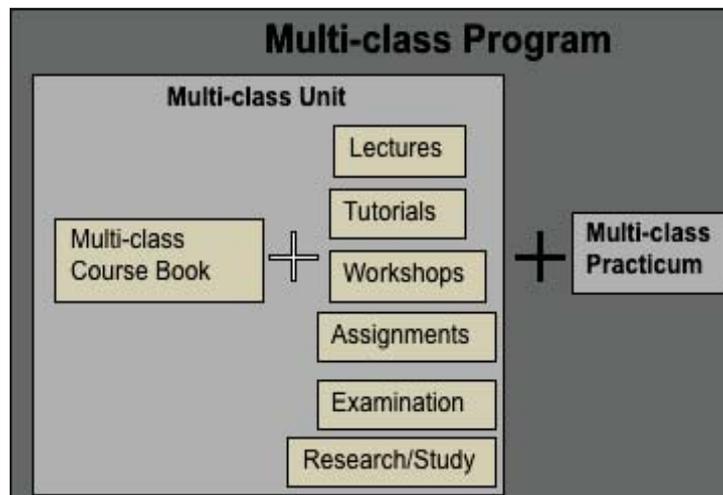


Figure 3.4. Components of the multi-class program

The practical as well as the theoretical components are intended to provide quality education to the pre-service teachers. The capacity of a nation to develop and progress can be enhanced with quality education for primary teachers, first and foremost in its endeavour to achieve a quality education and training system for all that is responsive to changing needs.

Unlike in schools with straight classes, teachers in MC situations are required to carry out teaching for two or more class levels in one classroom. Consequently, those teachers involved in MC situations are faced with formidable challenges. A teacher in a MC situation does not only deal with two or more grades of students but with children having different ability levels, interests and experiences. The MC program aims to equip pre-service teachers with appropriate knowledge and skills to enable them to teach effectively in MC situations.

### 3.4 *The Multi-class Unit*

The MC Unit consists of four hours of formal course work each week in the form of a weekly lecture, two hours of workshops and seminars, and a tutorial over a semester of 18 weeks (see Table 3.4). Library research, preparations for workshops and tutorials form the core of the directed study period, and pre-service teachers are expected to participate fully in all weekly learning programs. The interactive workshops give them the opportunity to critique and analyse units of work from different curriculum areas.

Table 3.4  
*Content of the multi-class unit*

Lecture	Tutorial	Workshop presentations	Supervised Research	Independent Study	MC Course Book
1 hour per week	1 hour per week	2 hours per week	1 hour per week	2 hours per week	16 weeks

The lectures are usually taken earlier in the week followed by tutorials and workshops. The lecturers introduce the topics for the week and give the general background knowledge. They also brief the pre-service teachers about the tutorials and the workshops for the week. Tutorials and workshops consist of many interactive activities and presentations. Figure 3.5 shows an example of a tutorial from one of the modules in the Course Book.

As stated earlier, the MC program consists of the on campus taught unit and the MC practicum. The on campus taught unit is based on a Course book comprising 10 modules.

<p>Tutorial Tasks: On the completion of readings, you are required to:</p> <ul style="list-style-type: none"> <li>• List the similarities and differences between multi-grade and straight class teaching</li> <li>• Use a Venn diagram to explore the similarities and differences between multi-grade and straight class teaching.</li> <li>• Identify the challenges of multi-grade teaching in Fiji schools.</li> <li>• Log entries to reflect on the processes and/or learning.</li> </ul>
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Figure 3.5. Sample tutorial task (Bingham & Waisale, 2005, p. 20)

### 3.5 The Course Book for DPE230

The MC Unit has a supporting Course Book entitled *Facilitating Teaching in the Multi-class Classrooms*. This is the main text used in the MC program (Bingham & Waisale, 2005). The Course Book is made up of ten modules to be covered over a 12-week period of the on-campus taught unit and six weeks of the MC practicum. The bulk of the content is covered before the practicum and topics on evaluation are basically covered after the pre-service teachers return to the College from their MC practicum. Table 3.5 shows the general outline of the course content.

The content is conceptualised within a social constructivist paradigm which argues that meaningful learning takes place when students are given opportunities to build up their own understanding through exploration and discovery learning in a social context. It is based on the social learning theories of Vygotsky (1978) and Bandura (1986) and contends that people learn from one another, through observational learning, imitation, and modelling. “All of these skills and the theoretical understandings upon which they are built are acquired through practice and reflection” (Bingham & Waisale, 2005, p. 4). Social interaction plays a very important role in the process of cognitive development. This theory focuses on the connections between people and the socio-cultural context in which they act and interact in shared experiences (Crawford, 1996). In this case, pre-service teachers spend six weeks in a

school and contribute towards the socio-cultural environment of the school. Constructivism allows learners to take charge of their own learning and to actively construct or build new ideas or concepts based upon current and past knowledge (Good & Brophy, 1990; Jonassen, 1992). The content is discussed in detail in the following section.

Table 3.5  
*Content of the Multi-class Course Book (Bingham & Waisale, 2005, p. 10)*

Wk	Module	Topic
1		Unit Introduction and forming of Tutorial and Workshop groups. Distribution of text books and Library tour.
2	1	Teaching in a multi-grade classroom versus teaching in a single stream classroom. What are the differences? What are the challenges? Developing a supportive learning environment.
3	2	Managing time, resources, the learning environment, student learning and student behaviour in a multi-grade classroom
4	3	Planning in a multi-grade context: Planning for integration. Planning for differentiation. Using contemporary strategies.
5	4	Teaching in a multi-grade context: Differentiating the curriculum to effectively meet the needs of all learners. Teacher as a facilitator
6	5	Student-centred learning: Developing responsible and autonomous learners. Developing a community of learners.
7	6	Teaching in a multi-grade context: Integrating curriculum to create a purposeful and relevant learning context for all students. Challenging and engaging all students.
8-13		<i>MC Teaching Practicum</i>
14	7	Some effective strategies for multi-grade teaching: Collaborative learning strategies; Peer tutoring; Learning centres; Open-ended tasks and Goal setting
15	8	Authentic assessment: Principles of assessment, Assessment OF learning; assessment FOR learning, Product or process, Assessing progress and achievement, Use of portfolios and work samples, Anecdotal assessment, Student self assessment and Peer assessment
16	9	Assessment: Integral role of assessment in the teaching and learning cycle, Designing assessment tasks that clearly link to the learning outcomes and Developing an assessment plan
17	10	Changing Biases into Benefits: Case Studies from Developing Countries
18		Study break and Examination

### *3.5.1 Introduction to Multi-class Education*

The first few topics introduce the concept of MC teaching and discuss the similarities and differences between MC and straight class situations. They give a broad overview of MC teaching and inform the pre-service teachers that children in such a context have a range of skills, knowledge and understandings about a diversity of topics. The Course Book supports the pre-service teachers in learning to effectively manage these complexities. It explores successful MC teaching practice that intends to empower the teachers to deliver differentiated learning programs to meet the needs of all learners regardless of the classroom context and to become exemplary teachers.

### *3.5.2 Creating a Supportive Learning Environment*

Pre-service teachers are introduced to a number of methods that can enable them to create supportive learning environments. They are encouraged to foster a sense of community through collaboration, cooperation, individual goal-setting and shared outcomes. It is important to carefully and thoughtfully plan the classroom layout to utilise space effectively and to facilitate independent and collaborative learning experiences. This arrangement also leads to peer learning as students are expected to work independently and/or collaboratively when the teacher is focused on another group.

Some of the management issues covered in the module deal with time management and use of resources. The workload in a MC setting is greater as there is more than one class, however, as routines, resources and learning centres become established, students are able to engage more purposefully in their learning and the issue of management becomes less threatening. Similarly, pre-service teachers are encouraged to create an environment of mutual trust and respect in which students feel valued and supported despite being from different classes. Teachers in a MC context have to give equal emphasis to the different

classes and be able to plan integrated approaches to topics to contextualise the learning for all students and help them see the connections between the learning tasks and the key learning areas (KLAs).

### *3.5.3 Planning for Multi-class Teaching*

Modules 3 and 4 equip pre-service teachers with knowledge and skills to be able to plan prior to taking lessons in MC contexts. Pre-service teachers are trained to prepare unit overviews that outline all KLAs to be included in the unit and an overview of the specific aspects to be covered. They are expected to demonstrate: (1) the key understandings to be developed; and (2) the planned learning experiences and strategies through which these understandings would be achieved. Moreover, the overview should identify the learning tasks the teacher will be assessing and how they will be assessed. Pre-service teachers should be able to “prepare daily plans that indicate the planned learning and teaching program for the day with approximate time allocations and an indication of the different learning tasks for different groups” (Bingham & Waisale, 2005, p. 56).

Pre-service teachers are informed through lectures that learning evolves as a joint search for understanding with teachers and students becoming partners in the learning process. During the planning process pre-service teachers are tasked with making important curriculum choices on the way they need to organise the curriculum content of their program. They plan for integration and differentiation using contemporary strategies such as group work, placemats and jigsaw puzzles. Placemat is an activity “designed to allow for each individual’s thinking, perspective and voice to be heard, recognised and explored” (Bingham & Waisale, 2005, p. 30). Advanced and prior planning are seen as very important in making MC teaching interesting and meaningful.

### 3.5.4 *Teaching in a Multi-class Context*

Modules 5 and 6 basically discuss the art of teaching and the preparation that needs to be carried out before the practicum. MC pedagogies (strategies) incorporate an array of teaching methods that promote supportive classroom environments, and cater for individual differences in the classroom. For example, use of open-ended and hands-on learning activities and a “multiple intelligences approach that caters for a range of learning styles” (Bingham & Waisale, 2005, p. 97). Effective pedagogical practice promotes the wellbeing of children and allows for meaningful learning to take place. The whole text revolves around two major strategies known as integration and differentiation.

Integrated curriculum is a student-centred approach that puts the learner at the centre of the program and contextualises student learning by linking all KLAs to a central unit or topic. It encourages “active, engaged learning through open-ended discussion and multiple modes of inquiry” (Bingham & Waisale, 2005, p. 73). Detailed organisation of open-ended activities and goal setting are discussed in module 7. Integration allows an in-depth study of a topic through discussion leading to concept mapping and linking similarities from different subject areas.

On the other hand, differentiation involves designing a range of learning activities targeting different developmental levels to enable students to engage in the learning experience appropriate to their own ability level and prior achievement. It is not necessary to deliver different learning topics for each class level in the MC classroom. What is critical is that within any topic or teaching and learning episode, provision is made for whole-class, small-group and individual teaching (Bingham & Waisale, 2005).

The teacher’s role is to set two or more of the groups to work independently while he or she works in a focused way with one of the groups. Thus the teacher’s role is to be actively involved in the teaching and learning process as little effective teaching occurs when a

teacher is seated at the teacher's desk. In a differentiated classroom, teachers match learners with essential understandings and skills at appropriate levels of challenge and interest. This means that students can work on a variety of tasks at a level of depth and complexity appropriate to their individual developmental and cognitive level. Moreover, the curriculum content is adjusted to "suit learner needs rather than expecting students to adapt to the curriculum content. It recognises that a "one-size-fits-all" approach to curriculum delivery is not viable (Bingham & Waisale, 2005, p. 86).

A comprehensive repertoire of teaching strategies, coupled with knowledge of child development, is seen as a pre-service teacher's greatest resource in achieving success in a MC context.

### *3.5.5 Contemporary Strategies in Multi-class Teaching*

While the modules revolve around integration and differentiation as the main strategies to be used in MC teaching, module 7 presents a discussion of some collaborative learning strategies. It allows learners to undertake tasks according to their own ability levels and conceptual development while, at the same time, creating opportunities for students to learn from each other through discussion and sharing of ideas in order to complete assigned tasks. Module 7 further elaborates on the importance of learning centres and the importance of open-ended tasks and goal setting. It spells out clear criteria for goal setting by stating that learning goals must be short, focused, achievable and measurable (Bingham & Waisale, 2005).

The module also discusses some other contemporary learning strategies which enable children to develop deeper understanding and become more confident learners. These strategies include Think-Pair-Share, mind-mapping or concept mapping, placemat, graffiti, gallery walk and jigsaw, "all of which have multiple and positive applications in classrooms"

(Bingham & Waisale, 2005, p. 118). These cooperative learning strategies support slow learners to scaffold their learning through talking and learning from their peers. These types of strategies are relevant to the Fijian context as children mostly come from a communal system of living. As such, they enjoy working in groups and thus they are able to develop better understanding of the concepts and improve their knowledge.

### 3.5.6 *Assessment Alternatives*

Modules eight and nine cover assessment procedures enabling pre-service teachers to gain knowledge and skills in designing authentic assessment tasks. It enables them to explore the necessary changes in assessment methodologies that are consistent with outcomes-focused education to develop competence in assessing what a conventional test is unable to assess. Assessment is viewed as more than simply the recalling of knowledge. As well as traditional summative assessment pre-service teachers are introduced to other means of assessment including different types of formative assessment. A range of assessment techniques and strategies is required to provide sufficient and valid information for teachers to make on-balance judgments. Moving on from traditional means of giving tests, they are introduced to the notion of authentic assessment.

Authentic assessment requires the collection of data in a range of contexts over time. In authentic assessment, the tasks are planned at the same time that the unit is planned to ensure a good reflection of the learning that takes place within the unit. The tasks are designed to be purposeful and closely aligned to “real life” situations. Authentic assessment is made up of challenging activities that require students to apply, analyse, synthesise, evaluate and integrate knowledge (Bingham & Waisale, 2005). Pre-service teachers are also encouraged to engage in authentic aspects of assessment such as preparing anecdotal records, keeping portfolios and building student profiles.

### *3.5.7 Case Studies in Multi-class Contexts*

The final module, module 10, presents some case studies and explores the biases and benefits of MC teaching in some developing nations. It presents pre-service teachers with opportunities to see the relevance and actual implementation of MC strategies in developed as well as in developing countries around the world. The various case studies enable pre-service teachers to realise that, while there are challenges, there are also certain benefits from MC teaching. MC schools are considered to be fulfilling an important role in improving access to primary education and in maintaining services in the light of budgetary and personnel constraints. This module enables pre-service teachers to contextualise their learning and be able to see that MC schools are an efficient means of providing education services to children in rural and remote areas.

### *3.5.8 Assignments*

Pre-service teachers must record good attendance and complete assessment tasks in order to successfully complete the MC Unit. Attendance is compulsory and pre-service teachers are required to present sick sheets whenever they are absent from lectures, tutorials and workshops. In order to be considered for a pass they must attend at least 90% of all programmed activities.

There are four assessment tasks that pre-service teachers have to successfully complete in order to pass the Unit. As part of the first assessment task, they have to develop an integrated lesson plan. This task provides pre-service teachers with the opportunity to analyse and apply what they have learnt during the course in a practical context. The second assessment task is a project (with two parts) where the pre-service teacher has to develop a differentiated lesson. They also have to conduct the lessons during the practicum and present

the findings according to given criteria. Table 3.6 shows how the second part of the project is evaluated as part of student assessment.

Table 3.6  
*Marking Sheet* (Bingham & Waisale, 2005, p. 8)

Criteria Description	Marks Available	Marks Gained
Neatness and creativity in your presentation	3	
Clear demonstration of understanding of the teaching, learning, assessment cycle.	4	
Pre-service teachers have developed assessment tasks to meet a range of developmental levels.	6	
Pre-service teachers have developed assessment tasks that have clearly identified links to the learning outcomes	7	
TOTAL	20	

The third assessment task is the compiling of a journal. It includes weekly reflections on lectures, tutorials and workshops. It also consists of observations and practices experienced during the practicum (Table 3.7).

The last assessment is the final examination, held towards the end of the semester.

Table 3.7  
*Assessment Summary* (Bingham & Waisale, 2005, p. 6)

Assessment Task	Topic	Weighting Percentage	Due Date
Task 1	Integrated Lesson Plan	20	Week 5
Task 2	Project A	20	Week 6
	B	20	Week 14
Task 3	Reflective Journal	20	Week 16
Task 4	Final Examination	20	Week 17

The previous sections have presented a summary of the ten modules covered in the MC Course Book. Modules on planning, teaching and assessment have been incorporated and condensed to give a holistic view of the aspects covered in the separate modules covering similar aspects. The research for this thesis will shed more light on the effectiveness of the modules in preparing pre-service teachers for teaching in MC situations.

### *3.6 The Multi-class Practicum*

Although the Teachers College has a commitment to support and contribute to all Ministry of Education's strategic objectives and, in particular, "to develop and support a professional teaching force which is responsible for and responsive to both learning and learners" (Ministry of Education, 2004, p. 1), the MC program does not specifically spell out the details and expectations of the MC practicum. The on-campus taught Unit covers the strategies and planning aspects but the actual requirements within the practicum component of the program, such as the number of lessons to take, the competencies that need to be covered and the role of the Associate Teachers (AT), are not covered. The practicum coordinator provides the requirements of MC practicums in briefings prior to the practicum.

The practicum strand is organised around three primary practice teaching sessions. Each practicum focuses on the development of specific sets of beginning teacher attributes and competencies. Together the practica form a developmental learning continuum of professional knowledge, skills and attitudes for pre-service teachers. Various on campus units integrate and articulate the learning and teaching of professional knowledge, skills and attitudes during the practicum. For example, pre-service teachers complete all the requirements of *DPE 120 Teaching and Learning in the Primary School* before completing the home-based practicum. Table 3.8 shows the courses offered by the School of Education that facilitate each of the three practicum strands.

To reflect their focus, the College has adopted a total of 16 weeks in three rounds of innovative and diversified practicum program (Table 3.9). The first practicum takes place towards the end of first year and pre-service teachers go to schools near their homes. The second one is the MC practicum and they go to MC schools. Pre-service teachers stay at their allocated MC schools for the duration of the practicum. However, there are exceptional cases, where the pre-service teachers attend MC schools from their homes. This situation only arises when the MC schools are located near to the homes of pre-service teachers. At times they also take colleagues with them to home stay while completing their practica.

The third practicum is College-based and the pre-service teachers are posted to large urban schools around the western division.

Table 3.8  
*Education Units and the Practicum Strands*

Education units	Practicum strand
DPE 120 Teaching and Learning in the Primary School	4 weeks home based
DPE230 Facilitating Learning in the MC Classroom	6 weeks school/home-based
DPE240 The Inclusive Classroom	6 weeks College-based

Table 3.9  
*College Practicum Program*

Year	Number of Weeks	Type of Practicum	Practicum School
1	4	Home based Practicum	Flexible
2	6	School/Home based practicum	Rural practicum – MC
	6	College based practicum	Urban Schools

### 3.6.1 Preparation for Multi-class Practicum

As noted previously, the practica are developmental in nature. They are central components of primary teacher preparation programs at the College as they allow pre-service

teachers to obtain practical experience in teaching. The MC practicum allows pre-service teachers to develop effective learning and teaching strategies in natural settings (Short, 2004b). Learning is seen as a partnership between the children and the teachers with ample opportunities provided for all children to participate in the learning-teaching process.

Pre-service teachers are supplied with rations and are transported to their respective schools a day before the practicum officially begins. Pre-service teachers know their cluster lecturers and complete the preparations before they depart the college. Preparations are sighted by the lecturers and approved using a checklist (see Appendix A.1) prior to pre-service teachers boarding buses for their respective schools.

### *3.6.2 Competencies and Indicators*

Pre-service teachers are briefed about the competencies that they have to achieve and the indicators that would show lecturers and associate teachers that the competencies have been achieved. Moreover, the lecturers and the associate teachers are also briefed about the competencies that pre-service teachers need to achieve during the MC practicum. The practicum coordinator conducts staff development sessions where the staff members are told about the different competencies and the corresponding indicators (see Appendix A.2). These sessions are usually conducted prior to a practicum so that new staff members understand the nature of the competencies. The sessions also act as refreshers for the remaining lecturers.

Lecturers make three visits to the pre-service teachers during the MC teaching practice of six weeks. The first visit is made in the first week, which is an informal visit to ensure that the pre-service teachers have settled well, and to deal with any problems a pre-service teacher may be experiencing, including making alternative arrangements if necessary. The following two visits are where formal monitoring and assessment take place in consultation with associate teachers. Extra help and guidance are provided to pre-service teachers who are not

meeting the expectations of the practicum and are identified as “at risk students”. If improvements are not noted after counselling and guidance, the pre-service teachers may be relocated, have an extended practicum or even fail and be asked to repeat the practicum (Kumar, 2005).

### *3.6.3 Key Actors in Multi-class Practicum*

A practicum program is decided well ahead and there are certain key actors who play imperative roles in its planning and implementation. The practicum coordinator, lecturers, associate teachers and pre-service teachers are the key actors in a practicum program. All the stakeholders need to fully understand their particular roles and responsibilities and the roles and responsibilities of the other actors in order to successfully implement a practicum program.

#### *3.6.3.1 Associate Teacher Responsibilities*

Associate teachers play a very important role in the lives of the pre-service teachers. They are the mentors and role models supervising and guiding pre-service teachers. Their role is to approve teaching plans and programs, give daily feedback and provide appropriate guidance. Associate teachers also endorse pre-service teachers’ attendance records as well as help them to become members of the school staff and school community. Associate teachers also complete pre-service teachers’ assessment forms for week one and provide detailed feedback on pre-service teachers so that their strengths can be developed and weaknesses can be rectified. Associate teachers discuss the assessment forms with visiting lecturers and provide constructive feedback to the pre-service teachers.

#### *3.6.3.2 Role of the Practicum Coordinator*

Before the practicum begins the practicum coordinator at the College makes visits to the MC schools in the western division for the placement of the pre-service teachers for the

six weeks of MC practicum. Pre-service teachers are only posted in the western division because it is closer and more economical for the College. Once a week pre-service teachers are briefed about the requirements of the MC practicum by the practicum coordinator. The MC schools are grouped in clusters so that it is easy for supervision and the pre-service teachers are posted to schools that have agreed to take them.

Apart from posting the pre-service teachers to MC schools, the practicum coordinator also briefs pre-service teachers on expectations of the MC practicum and briefs head teachers and associate teachers about practicum requirements before pre-service teachers are posted to the schools. Lecturers also go through staff development sessions where they are briefed about assessment procedures and supervision requirements. Much effort is expended locating schools that have adequate resources to host pre-service teachers for six weeks. At times the practicum coordinator has to liaise with nearby villagers to provide accommodation for the pre-service teachers during their MC practicum.

The practicum coordinator also has to prepare a budget for the MC practicum taking into consideration the number of visits made by visiting lecturers, and their accommodation, travelling and meal allowances. Moreover, the practicum coordinator is in-charge of planning and allocating the use of the College vehicles for lecturers on different days. After the completion of the practicum, the practicum coordinator collects the assessment forms from the respective lecturers and information is recorded. The feedback from different schools is analysed and relevant recommendations are accommodated in order to make the MC practicum more effective in future.

#### *3.6.3.3 Role of the Lecturers*

As discussed earlier, apart from assessing, the lecturers play a more pivotal role in improving the performance of the pre-service teachers. This is the reason why it is called a

developmental practicum. It is developmental because the pre-service teachers should progressively learn and practise the attributes, attitudes and competencies of becoming reflective and reflexive in the practicum (Kumar, 2005). Lecturers talk with the pre-service teachers about their learning and development as beginning teachers on every visit during the practicum. This is one of the methods of helping them to learn and to develop as successful beginning teachers. The quality of learning and development is dependent upon the quality of the professional feedback and support provided by the lecturers.

Feedback is most effective when it takes the form of a learning conversation between the pre-service teachers and the lecturers. The learning conversation focuses on aspects of the work that have recently been observed by the associate teacher. The feedback in learning conversations needs to begin on a positive note so that the esteem of the pre-service teacher is considered (Short, 2004b). Lecturers consider the conversations as a form of encouragement rather than blame or negative judgment. Upon subsequent visits, lecturers follow up on areas identified as needing improvement earlier, and provide support and encouragement to the pre-service teachers so that all the requirements of the practicum can be successfully completed.

#### *3.6.4 The Performance Ratings*

Ratings appear on the assessment forms. All ratings are supported by written feedback before being recorded on a student's assessment profile. In order to obtain a satisfactory report, pre-service teachers must score "E" (meaning "effective") or "HE" (meaning "highly effective") in all the competencies in the final assessment. These ratings for a competency are supported by a trail of written supporting documentation. An "ND" rating for a competency means "needs development" and that there is room for improvement (Bingham & Waisale, 2005).

A pre-service teacher who receives “ND” in any one of the competencies during the final assessment of the MC practicum, is deemed to have an unsatisfactory result and is required to repeat the practicum until all competencies can be rated as at least “effective” (Bingham & Waisale, 2005). The professional practice assessment forms (see Appendix A.3) are designed to be used as learning tools for pre-service teachers as well as being summative records of their performance and achievement. The assessment form has a list of competencies, rating profile, and space for formative and summative comments. The assessment becomes a shared responsibility of college lecturers, pre-service teachers and associate teachers in teaching practice schools.

The assessment form is intended to provide evidence of progressive development of a pre-service teacher’s performance. The assessment form also has space for the Head Teachers at the MC school to make summative comments on the pre-service teacher’s professional behaviour and contribution to host school and community. At the bottom of the assessment form, the supervising lecturer, associate teacher and the student teacher sign their names, authenticating their shared responsibility during the practicum.

### *3.6.5 General Expectations from Pre-service Teachers*

As a MC practicum requirement, pre-service teachers have to make a scheme of work for the term in respective subject areas. A school term is made up of 13 to 14 weeks. They are also required to make the weekly teacher’s work books and detailed lesson plans. Lesson plans are prepared a day in advance and approved by associate teachers before lessons begin. Pre-service teachers have to accomplish a number of other tasks apart from just planning and taking lessons in the classroom. They have to record their observations in a Teaching Portfolio and/or Reflective Journal. They make maps and outlines of the classroom, copies of timetables and other appropriate learning resources (Bingham & Waisale, 2005).

Despite staying in the schools for only six weeks, pre-service teachers are encouraged to collect as much information as possible about school administration and management. They have to note management issues and take the initiative in finding out from other teachers, parents and community members as much as they can about the school as a whole and its community. High professional standards have to be maintained at all times while undertaking a professional practice program. Pre-service teachers have to dress appropriately and in accordance with the expectations of the host school and the community at all times (Bingham & Waisale, 2005).

### *3.7 Summary*

This chapter presented a broad overview of the MC program of the Teachers College. The chapter provided information about the Fiji context of the MC program, then discussed the content of the taught on-campus MC Unit and the MC practicum, especially the contributions of different stakeholders towards the effective implementation of the MC practicum. The research for this thesis is concerned with the MC program, exploring the views of the pre-service teachers about how well the program prepares them for teaching in MC situations.

Chapter 4 presents the methodology that was implemented in the research.

## Chapter 4: Research Methodology

### 4.1 Introduction

This chapter explains the methodology adopted to address the research questions of this thesis. The prime focus of the research is to develop an understanding of pre-service teachers' experiences of their preparation for MC teaching; the over arching question is:

*How do pre-service teachers perceive this particular MC program in preparing them for teaching in MC situations?*

Four underlying questions were posed for the underpinning of the key research question:

- 1) What concerns do pre-service teachers have about MC teaching prior to undertaking their MC program?
- 2) What aspects of their MC Unit do pre-service teachers perceive will be effective during their practicum?
- 3) What aspects of the MC Unit are relevant and applicable during their practicum?
- 4) How effective do pre-service teachers perceive their overall MC program was in preparing them for MC teaching?

The chapter discusses the theoretical underpinning of the research and justifies the selection of an appropriate research paradigm. The discussion is followed by an explanation of the research design and the methods used for collecting and analysing the data. The chapter concludes with a discussion of the quality criteria and ethical practices considered whilst undertaking the present study.

## 4.2 *Research Paradigms*

Education research, as well as research in other similar areas of inquiry, can be typically conducted within one of a number of competing paradigms. For Coll and Chapman (2000), paradigms are belief systems that are based on ontological, epistemological and methodological assumptions. Ontology refers to realities being constructed by social actors and, as a result, different research projects can have different conclusions from one another (Brayman, 2001). Epistemology refers to the way we acquire knowledge by conducting investigations in the social context, which may lead to many interpretations and meanings. Methodological assumption focuses on analysis of the methods used for data gathering with the belief that the meanings of the social actors can only be discovered through close interaction between the researcher and respondents (Cohen, Manion, & Morrison, 2007).

A paradigm is a set of beliefs or worldviews shared by a community of researchers that lie behind and support legitimate inquiry. Furthermore, according to Clark and Creswell (2008), a paradigm is a conceptual model of a person's worldview, complete with the assumptions that are associated with that view.

### 4.2.1 *Paradigm Synopsis*

There are a number of ways of conceptualising research paradigms (see for example, Creswell, 2008; Grey, 2004; Lincoln & Guba, 1985). Some of the competing or alternative paradigms are positivism, post-positivism, critical theory, and interpretivism/constructivism. Of these the more common paradigms used in educational research are positivism and interpretivism/constructivism. The positivist paradigm is characterised by an ontology of realism, and suggests that human behaviour is essentially rule-governed and can be investigated by the methods of natural science (Lincoln & Guba, 1985).

Within the positivist paradigm, reality exists outside the reference frame of the observer. Under this model, researchers follow an objectivist epistemology; that is, the researchers believe that they do not influence, neither are they influenced by, the inquiry. Within a positivist paradigm, therefore, experimental and manipulative methodologies are selected (Coll & Chapman, 2000; Guba & Lincoln, 1989).

In contrast, the constructivist paradigm is characterised by a concern for the individual, and is focused on meaning. This paradigm is based on a relativist ontology, which “asserts that there exist multiple socially constructed realities ungoverned by any natural laws” (Guba & Lincoln, 1989, p. 84). An investigation that is undertaken within this paradigm is ascribed to a transactional and a subjective epistemology. A constructivist approach considers that what is inquired into and who inquires are interlocked, and asserts that the findings of an inquiry are literally constructed by the inquirer; hence, the methodologies selected involve interaction between the researchers and the participants (Guba & Lincoln, 1989). The approach is based on a constructivist view of learning, which considers knowledge is constructed in the minds of individuals rather than being discovered in the external world.

The interpretivist paradigm focuses on revealing participants’ views of reality rather than attempting to define external reality (Lather, 1992). Since the research questions deal with elucidating the expectations and views of pre-service teachers as they progress through the MC program, this study uses the interpretivist paradigm; the research is predominantly about interpreting findings related to the research questions. The views expressed by Liamputtong and Ezzy (2008) that it is through interpretations that one is better able to understand the issues one is trying to study, also substantiate the selection of the interpretivist paradigm.

The following section provides further justifications for the selection of the interpretivist paradigm for the present research.

#### 4.2.2 *The Interpretivist Paradigm*

This research was conducted within the interpretivist paradigm as the key concern was understanding the phenomenon under study from the participants' perspectives. While the positivist forms of research are more concerned with testing theories and setting up experiments, the interpretivist paradigm allows one to be really interested in understanding the experience (Merriam, 1998).

The interpretivist paradigm is characterised by a concern for the individual and has a focus on the importance of understanding, interpretation and meaning (Lincoln & Guba, 1985). Cohen and Manion (1994) argue that the main focus of the interpretivist paradigm is to understand the world of human experience and how individuals are actively or directly involved in this world. Hence, the methodologies selected must include and respect the role of interpretation in creating understanding. The interpretivist paradigm is process and field oriented, using interviews, observations and reviews of documents to address the objectives of a research project (Stake, 2005). It enables a researcher to gather data about a given problem with the intent of analysing and interpreting the data in order to obtain meaningful and important information.

The interpretivist paradigm considers the researcher as an integral component of the inquiry; therefore, the real issue lies with finding ways in which the inquiry can be enhanced with the researcher's presence taken into account. Cohen and Manion (1994) suggest that an interpretivist worldview is useful in understanding and comparing data gathered at different times or places within similar contexts, and Miles and Huberman (1994) point out that the interpretivist approach is that which is concerned with providing a practical understanding of meanings and actions of a given incident or sets of incidents.

The following section discusses the selection of an appropriate and relevant research design within the interpretivist research paradigm.

### 4.3 *Research Designs*

A research design is an overall structure that enables researchers to map out strategies to be implemented in collecting relevant data. There are many research designs and the selection depends upon a number of considerations such as world view assumptions, procedures of inquiry, nature of the research problem, audience and the researcher's personal experiences (Creswell, 2009). Designs need to be consistent with the research paradigm chosen (in this thesis, the interpretivist paradigm).

I chose a case study research design for the present study because it is the most appropriate for addressing the many facets of MC education and, in particular, the overarching research question and four underlying questions. Such a design enabled me to draw on the strengths of both qualitative and, to a lesser extent, quantitative aspects of the research. Case studies allow the use of multiple sources of information based on what the researcher wants to find out and the nature of the research questions (Creswell, 2007).

For this research, I was concerned to discover the perceptions of pre-service teachers from one educational institution, a Teachers College in Fiji, by using questions that contained "what" and "how"; these types of questions are best addressed by using a case study design (Yin, 2003). The study for this thesis was bounded by time and place (explicit features of a case study research design); it was conducted during the first semester of 2009 in a primary teacher training institution in the Republic of the Fiji Islands. As such, the case study seemed to be the best design as it also facilitated the use of mixed methods.

#### 4.3.1 *Mixed Methods*

In mixed methods approaches, researchers use both qualitative and quantitative means of gathering information to answer research questions. The basic premise of using mixed methods is that the combination of quantitative and qualitative approaches provides a better

understanding of research problems than either approach alone and “mixed methods research provides strengths that offset the weaknesses of both quantitative and qualitative research” (Creswell & Clark, 2007, p. 9).

Mixed methods can enhance the clarity of findings because of the increased breadth and depth of results, as well as being more trustworthy because it is possible to triangulate the data from different sources. There are many studies where both qualitative as well as quantitative approaches have been used (e.g., Bogden & Biklen, 1998; Grey, 2004; Miles & Huberman, 1994; Silverman, 2005; Vithanapathirana, 2007). The nature of the research questions and my quest to understand the perceptions of pre-service teachers demanded a mixed methods approach to data gathering and analysis. MC teaching is complex and a large toolkit of both qualitative and quantitative methods to collect the data provides increased confidence of finding sound, evidence-based answers to the research questions.

For example, the first and the last research questions were intended to obtain the views of the whole cohort of 150 second-year pre-service teachers prior to the MC preparation program and at the end of the program. The most appropriate method of gathering such a large amount of data was to use a survey. Observations and documents were used to gauge the effectiveness of the preparation program during the practicum thus addressing the third sub question while interviews were used to get the views of the pre-service teachers as they progressed through the different phases of the MC program. The issues regarding the choice of methods and sample size are discussed later in this chapter.

The research was conducted in five phases but the fifth and the final phase was unanticipated and as such, is not present in the original research design but the design was subsequently modified to include it. Figure 4.1 illustrates the phases, the questions and the mixed method employed in the research. It shows the original research design that was planned to address the research questions in this study.

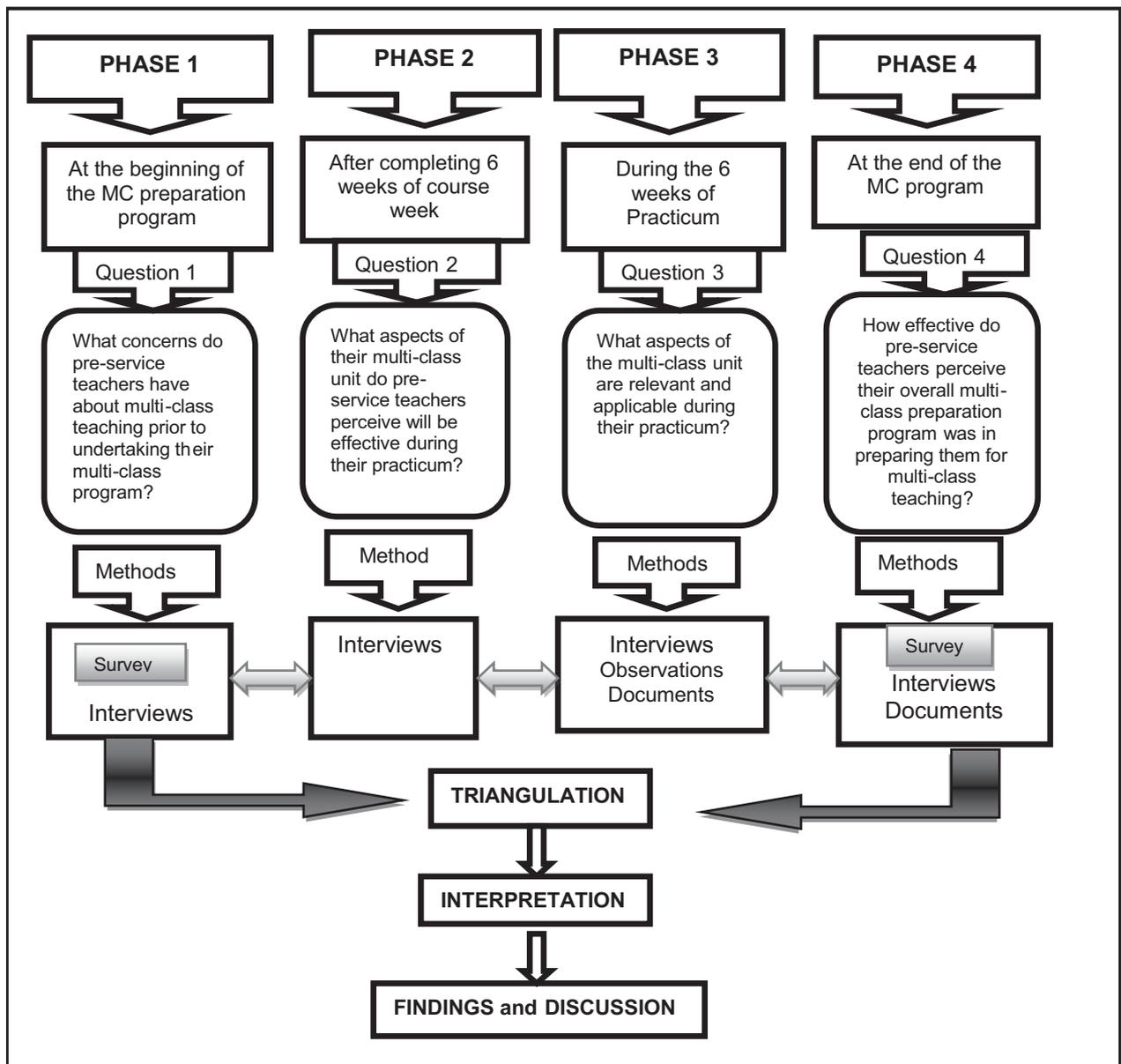


Figure 4.1. Research questions, methods and phases of research

There are some controversial issues regarding the use of mixed methods research. According to Morse and Niehaus (2009) their “initial impulse was to skip it altogether, but dodging is also a practice that can be criticised” (p. 19). They try to decipher the divergence by stating that researchers should focus on the questions as the guiding principle in research (Morse & Niehaus, 2009). Scholars writing about mixed methods research continue to debate

how qualitative and quantitative data are to be integrated, what mixed methods designs should look like and the steps involved in carrying out mixed methods research (Creswell & Clark, 2007, p. 324).

However, highlighting such issues is considered to be a way to encourage researchers to reflect critically. In the research for this thesis, the discussion of results is organised around individual research questions and the method of collecting data is clearly stated. For example, findings are discussed using terms like “survey data”, “observations”, to identify the method of collecting data.

#### 4.3.2 *Types of Mixed Methods*

There are four common types of mixed methods used by scholars in educational research (Creswell, 2009). Each type is unique in its entirety as each tends to address different aspects of the research.

1. Sequential studies are conducted in segments where the researcher uses one method that is followed by another method. The questions from both qualitative and quantitative approaches are dependent upon or emerge from each other. The research questions are related to one another and “may evolve as the study unfolds” (Teddlie & Tashakkori, 2009, p. 27).
2. Parallel/simultaneous studies are those where both qualitative and quantitative methods are used simultaneously. This approach is also known as concurrent triangulation because both the types of data are collected concurrently. The two databases are later compared to determine convergence or difference.
3. Equivalent status studies are those when both the approaches are used equally. This is also a type of concurrent approach where equal emphasis is given to the qualitative and the quantitative approaches (Onwuegbuzie & Teddlie, 2003).

4. Dominant-less dominant studies are where the researcher conducts the study using a dominant method and uses a small component of the overall study drawn from an alternative method (Creswell, 2009). This latter type of mixed method is also known as an embedded or nested study.

Rigorous, high quality studies result from the selection of the appropriate type of mixed method because it provides the researcher with a logical framework. Taking into consideration the research questions, and the relative priority of the qualitative aspects, I decided to select the embedded mixed methods approach for the research for this thesis.

#### *4.3.3 Embedded Mixed Method*

The embedded mixed method type was most appropriate for this research because mainly qualitative means were used to gather data. Out of the four methods used, three were qualitative while only the surveys took the form of quantitative research. The surveys contained open-ended questions thus further increasing the qualitative emphasis in the study. Giving weight or priority to either a quantitative or qualitative method is important in informing the researcher of the type of mixed method that may best help in addressing the research questions. For example, in some studies, the weight may be equal, while in other studies, it might emphasise one or the other. A priority for one type depends on the “interest of the researcher and what the investigator seeks to emphasise in the study” (Creswell, 2009, p. 206).

Many researchers use an embedded design because “the strength of this design is that it combines the advantages of both quantitative and qualitative data” (Creswell, 2008, p. 559). Although priority is given to the primary form of data collection, the secondary form complements this by providing additional information. Furthermore, the premise of an embedded approach is that the information provided by a single data set is not sufficient;

information provided by the secondary source of data provides the “additional sources of information that could not be provided by the primary source of data” (Creswell, 2008, p. 559). Figure 4.2 shows the embedded type of mixed method that was applied in the research for this thesis.

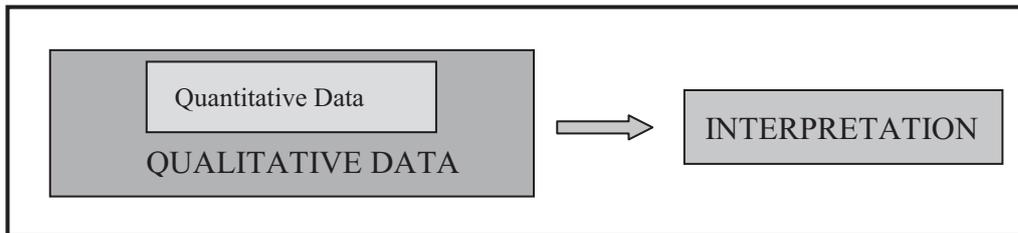


Figure 4.2. Mixed method applied in this thesis research (Adapted from Creswell, 2008)

Since quantitative and qualitative methods are employed concurrently, the approach used is also known as simultaneous mixed method and is denoted with a + sign. For example, QUAL + *quan* means that this research has a “qualitative core component” and a “quantitative supplementary component” (Morse & Niehaus, 2009, p. 28).

#### 4.4 Research Methods

Research methods are simply the means used by researchers to explore and answer research questions. There are a range of research methods that can be used. As noted above, the methods usually fall under the broad umbrella of qualitative and quantitative research methods. While certain methods are more inclined towards either qualitative or quantitative research, they are selected based on their strengths in addressing the research questions. Table 4.1 shows the methods that were implemented to address the four different research questions at each of the phases respectively in the research for this thesis. In each phase, interviews were used, and parallel versions of the questionnaire were used in phases 1 and 4. Other methods of data collection are also set out in Table 4.1. The same cohort of 22 pre-service teachers was interviewed during each of the four phases.

For the purpose of the present study surveys, interviews, observations and document analysis were selected as appropriate research methods. Each of these methods is discussed in detail in the subsequent sections.

Table 4.1  
*Summary of the Research questions and Methods*

Phase	Research question	Occasion	Methods	Sample	Reference
1	What concerns do pre-service teachers have about MC teaching prior to undertaking their MC program?	At the beginning of the program	Questionnaire	150 pre-service teachers	Appendix B.1
			Interviews	22 pre-service teachers	Appendix B.2
2	What aspects of their MC Unit do pre-service teachers perceive will be effective during their practicum?	At the end of six weeks of lectures	Interviews	22 pre-service teachers	Appendix B.3
3	What aspects of the MC Unit are relevant and applicable during their practicum?	During the six weeks of MC practicum	Interviews	22 pre-service teachers	Appendix B.4
			Interviews	10 associate teachers.	Appendix B.5
			Interviews Observations	10 visiting lecturers	Appendix B.6
			Document Analysis	10 Pre-service teachers 10 documents	Appendix B.7 Appendix B.8
4	How effective do pre-service teachers perceive their overall MC program was in preparing them for MC teaching?	At the end of the program	Document Analysis	10 documents	Appendix B.8
			Questionnaire Interviews	142 pre-service teachers	Appendix B.9
			Interviews	22 pre-service teachers	Appendix B.10
5	How effective do pre-service teachers perceive their overall MC program was in preparing them for MC teaching?	After completing 6 to 8 weeks of fulltime teaching in MC schools	Interviews	8 pre-service teachers employed as full time teachers*	Appendix B.11

\* These are the pre-service teachers who were employed as full time teachers due to the mass retirement of the civil servants on 30th April 2009 (Government of the Republic of the Fiji, 2009b). As such the initial design was slightly extended to include a small 5th phase.

#### 4.4.1 *Survey*

Surveys were administered as part of the data gathering strategy because they were viewed as the best methods for collecting large amounts of data in a relatively short period of time (Lankshear & Knobel, 2004) (see figure 4.1). A survey seemed to be the most appropriate and manageable means of getting the views of the whole cohort of 150 pre-service teachers prior to the MC preparation program as well as at the end, thus addressing questions 1 and 4. A survey is the favoured tool of many researchers because it provides a cheap and effective way of collecting data in a structured and manageable form (Wilkinson & Birmingham, 2003).

Furthermore, the choice of a survey was supported by similar reported studies. For example, the survey was used as a research tool by Berry and Little (2007) while trying to explore teachers' perceptions about the provision of multi-grade learning in urban schools in London. A survey was also used as a research tool by Suzuki (2007) in a study to evaluate the effectiveness of a training program on teachers of multi-grade schools in Nepal. Survey seemed to be the most convenient method of collecting data from 98 teachers before, during and after the training. Similarly the present study employed surveys to get a broad overview, while interviews, observations and document analysis were used to obtain in-depth information regarding the MC preparation program, including the practicum.

However, there are certain drawbacks associated with using a survey. For example there is a limitation on the choice of "possible answers/responses by using close ended questions and x point scales" (Lankshear & Knobel, 2004, p. 167). Lack of response and time constraints are some of the other difficulties often faced by researchers using surveys. At times the surveys do not reach the participants or arrive too late for the data to be analysed. Since the survey was administered at the Teachers College many of the problems such as

return or response rates were negated for this research. Sample selections, specifics of data instrumentation, procedures and data analysis are discussed in the following sections.

#### *4.4.2 Survey Sample*

The full cohort of 150 pre-service teachers at the Teachers College at FNU formed the research ‘sample’. The whole cohort of 150 pre-service teachers was selected because the sample size not only increased the internal validity but also provided more robust data. The whole cohort was also selected on the basis of the multi-cultural and the multi-ethnic composition of the participants. Participants were pre-service teachers in the final year of study and doing a MC practicum as part of their MC preparation program. This strategy is known as single-stage sampling. In a single-stage sampling procedure, the researcher has access to a list of people who can be directly involved in the research (Creswell, 2009).

#### *4.4.3 Instrumentation*

The surveys had been developed based on my experience working in the field of teacher education and MC education in particular. Although literature is an extremely valuable resource and an important store of knowledge, no previous survey items or model statements could be found regarding or related to understanding the perceptions of pre-service teachers undertaking MC practicum. As such, I had to develop my own survey by constructing items related to a MC program.

The surveys were made up of sixteen closed and six open-ended items. Open-ended items enabled the participants to shed more light on some of the issues they agreed or disagreed with or were even not sure of in answering closed-ended questions. At times, important information can be missed in closed-ended questions, thus open-ended questions enable researchers “to explore reasons for the closed-ended responses and identify any

comments people might have that are beyond the responses to the closed ended questions” (Creswell, 2008, p. 228).

The pre-program survey (Appendix B.1) administered at the very beginning of the MC preparation program addressed the first research question; *what concerns do pre-service teachers have about MC teaching prior to undertaking their MC program?* A parallel version, the post-program survey (Appendix B.9) was administered towards the end of the program. The post program survey addressed the fourth research question; *how effective do pre-service teachers perceive their overall MC program was in preparing them for MC teaching?* The following sub-sections explain the finer details of the instrumentation process.

#### 4.4.2.1 Survey Outline.

The surveys had three sections. Section A mainly dealt with biographical information such as name, gender, and race of the respondent. This was an optional section but provided information about the representativeness of the student population.

Section B consisted of sixteen items focusing on the perceptions of the pre-service teachers (a) prior to undertaking and (b) after completing the MC preparation program. As stated earlier, each item in the survey was developed taking into consideration the research question, the literature on MC and the context of the study. However ideas from similar research by Kucita (2009) and Hussain (2006) helped in formulating some of the survey items. For example one of the statements was ‘I have ample knowledge about MC teaching’. This statement addressed the first research question, had the backing of the literature and was contextual (Kucita, 2009). Responses in this section were based on a five-point Likert type classification.

There is much debate about how many choices should be offered (Brentari, Golia, & Manisera, 2006; Creswell, 2009; DeVaus, 1995; Grey, 2004; Nardi, 2006). Likert-type scales

are by far the most common type of survey scales used by educational researchers (Burns, 2000). They are used to register the extent of the agreement or disagreement with a particular statement, attitude, belief or judgment. Likert scales are based entirely on empirical data regarding subjects' responses rather than subjective opinions. In fact, this method produces more homogeneous scales and "increases the probability that a unitary attitude is being measured, and therefore that validity (construct and concurrent) and reliability are reasonably high" (Burns, 1997, p. 461). However, a disadvantage of using a five-point Likert classification is that only a few options are offered, leaving respondents little freedom to express areas of disagreement. To overcome this issue, apart from carefully selecting the statements, respondents were able to clarify their answers through a set of open-ended questions.

The survey was prepared based on advice from Cohen and Manion (1994) about writing simple statements and not using vague and lengthy sentences. Moreover, Schutt's (2006) suggestions were put into practice when designing the survey. For example he argues that selecting good questions is the single most significant concern for survey researchers and "all hope for achieving measurement validity is lost unless the questions in a survey are clear and convey the intended meaning to respondents" (Schutt, 2006, p. 237). Good questions and simple statements help participants to easily comprehend the meanings and provide meaningful answers. Issues of reliability and validity were taken into consideration and are discussed in detail later in this chapter.

Section C consisted of five open ended questions intended to elicit further information about participants' concerns and expectations of the MC preparation program. The version of the survey that was administered at the end consisted of six-open ended questions to establish whether expectations had been met and whether participants had any recommendations. Piloting the survey was also an aspect of the instrumentation process of the present research.

#### *4.4.2.2 Pilot Testing*

To attain a high level of validity, items for inclusion in the survey were carefully scrutinized and discussed before they were piloted. Ambiguous wordings were altered to improve the clarity, as well as to ensure content and face validity. Pilot testing of the survey took place with the intention of making changes based on the feedback from the participants (Nardi, 2006). The purpose of doing a pilot study is to get the “bugs out of the instrument so that respondents in your main study will experience no difficulties in completing it” (Bell, 2005, p. 147).

With the support of a staff member from the School of Education at the teacher education institution in Fiji, a pilot test of the survey was conducted on 19<sup>th</sup> August 2008 with thirty graduating pre-service teachers. They were asked to write comments and make suggestions about how the survey could be improved. The instruments and data were collected and analysed. The responses were quite positive and revealed that the participants had a good understanding of the questions. In addition to the pilot test, ten respondents were interviewed after they completed, to gather more information about clarity of instruction and whether there had been ample time allocated to complete the survey. Concerns such as the time factor were appropriately addressed when the final survey was administered in 2009.

#### *4.4.2.3 Procedures*

Approval to conduct the study had been sought from the Ministry of Education in Fiji prior to commencement of the research. The principal and staff of the Teachers College were aware of the research and were very supportive. I was given time for the first administration of the survey during orientation week. The cohort of final year pre-service teachers was addressed in the lecture theatre where I provided a brief overview of the research. As required by the UNE Human Research Ethics Committee, consent from participants was obtained before the survey was administered. Surveys were collected immediately upon completion.

Similarly, the post-program survey was administered to the cohort at their final briefing in the lecture theatre and, upon the completion of the survey, pre-service teachers were thanked for their participation in the research.

#### *4.4.2.4 Reliability and Validity*

Quantitative research needs to be valid and reliable (Merriam, 1998). Reliability means dependability and consistency of the instrument in measuring whatever it measures. It is the degree to which an instrument gives similar results for the same individuals at different times. In simple terms, reliability means that if the same questions are re-administered to the same participants, the responses should give similar results. Validity on the other hand indicates the degree to which measures reflect the underlying construct or “does it measure what it purports to measure” (Liamputtong & Ezzy, 2008, p. 33) .

Cronbach’s Alpha was used to measure the reliability aspects of the closed items in the surveys. Cronbach’s Alpha, Alpha for short, is a standard measure of reliability for the set of closed items to check the internal reliability since it measures the “degree to which the items comprising a scale work together in measuring a given construct” (Cooksey, 2007, p. 299). The Alpha coefficient ranges in value from zero to one and is used to describe the reliability of a set of items with two or multi-point formulated scales. A zero value means there is no reliability while the value of one indicates perfect reliability. Validity of the items was also checked using Rasch model of specifications and unidimensionality.

The pre-program reliability statistics showed a Cronbach’s Alpha of 0.609 and 0.670 based on 16, then 15 standardised items (Table 4.2). One item was removed to see if the Alphas improved dramatically. There was a slight increase in the Alpha based on 15 standardised items. The Alpha was not very high because the items covered a huge range of concepts and it was difficult to establish inter-item correlation. The various items targeted the

pre-service teachers' perceptions prior to taking up the MC preparation program and hence they would not be familiar with many of the concepts. However 0.670 is close to the suggested Alpha of 0.7, which is considered to be adequate alpha for research (Fraenkel & Wallen, 2006) and, given the nature of the survey, was considered acceptable.

Table 4.2  
*Pre-program Survey Reliability Statistics*

	Cronbach's Alpha	Cronbach's Alpha based on Standardised Items	Number of Items
16 items pre-program reliability statistics	0.559	0.609	16
15 items pre-program reliability statistics	0.630	0.670	15

A reliability test was also conducted for the post-program survey. The Cronbach's Alpha was .825 and .834 based on standardised items (Table 4.3). The high alpha can be attributed to some extent to the large number of items. On the basis that students would have a more complete understanding of the items following the course, all 16 items were retained based upon the reliability analysis.

Table 4.3  
*Post-program Survey Reliability Statistics*

Cronbach's Alpha	Cronbach's Alpha Based on Standardised Items	No. of Items
0.825	0.834	16

The validity of the scale was tested by analysing how the data fitted the Rasch model of unidimensionality. Rasch analysis provides a mathematical framework which allows for the conversion of raw scores into linear and reproducible measurement (Brentari et al., 2006). Rasch analysis evaluates the extent to which a given data set fits the assumption of a unitary scale (Yim, Abd-El-Fattah, & Lee, 2007), that is, its unidimensionality (Bond & Fox, 2007). If items can be shown to fit the Rasch model they are considered to be measuring a single underlying construct (Brentari et al., 2006). Data which do not fit the model are said to be

multidimensional, which implies that more than one latent trait is present in the data (Bond & Fox, 2007).

In Rasch analysis there are two types of statistics used to assess fit: infit and outfit statistics. Infit and outfit statistics can be calculated for both item estimates and case estimates. For item estimates, fit statistics provide an assessment of the degree of agreement between respondents of the difficulty of items along the scale. Generally infit values are considered more important than outfit values although neither should be discounted (Bond & Fox, 2007).

Both pre and post program sets of data were analysed using the Bond and Fox (11.11.09) Winsteps program. In the Rasch analysis all the items in the pre-program survey adopted a unidimensional scale except item number three. This item concerned “pre-service teacher’s experience in MC education”. Item three was removed because “misfitting items or persons are typically deleted from the model fitting process during scale refinement” (Cooksey, 2007, p. 361). Therefore, only 15 items were considered in the pre-program survey.

As shown in Figure 4.3, the remaining 15 items fall within the fit value of -2 and 2 which are accepted values for a good quality research (Bond & Fox, 2007). The degree to which an item meaningfully contributes to the measurement of the single utility or construct is referred to as the ‘fit’. Fit is the amount of agreement between the observed response and expected response as predicted by the Rasch model (Bond & Fox, 2007). Fit statistics are important as they are the means by which assumption of unidimensionality – fundamental to the Rasch model – can be tested empirically.

Figure 4.4 shows that all 16 items in the post program survey fall within the accepted range of -2 and 2 (Bond & Fox, 2007). The scale looked strong after item number 3 was removed, making a strong case for unidimensionality.

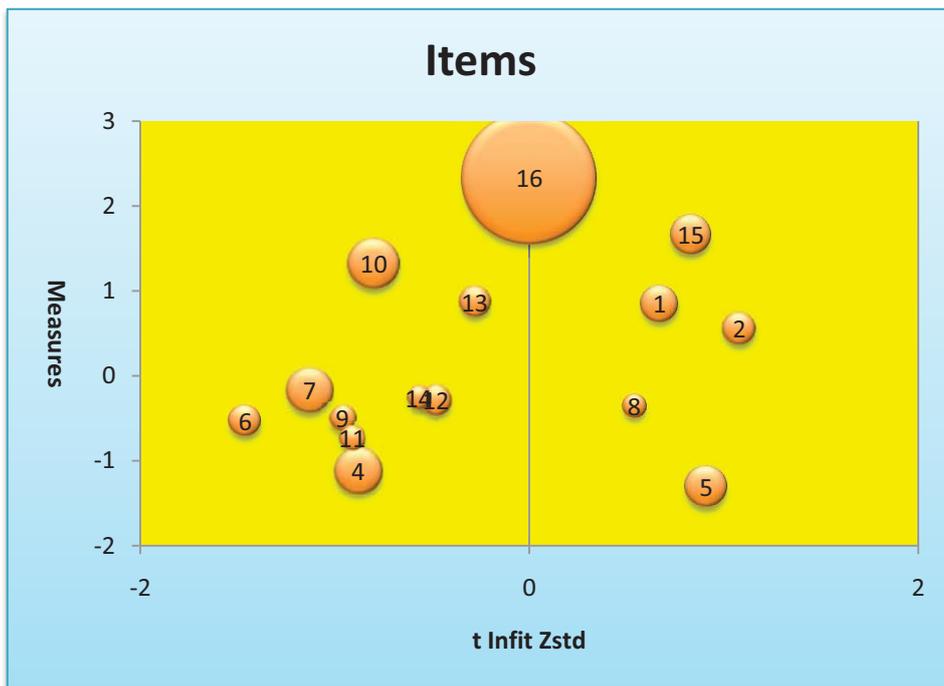


Figure 4.3. Rasch model of pre-program data analysis (minus item no. 3)



Figure 4.4. Rasch model of post-program data analysis

Table 4.4 shows that the measures attained for both the surveys fall within the acceptable values of Rasch's Model (Cooksey, 2007). The measures suggest a good spread of values for the research to be reliable and would provide a similar replicability of findings if using a similar sample of items. Reliability measures using Rasch thus confirm the

Cronbach's alpha data reported above. The statistical results show the data had good fit to the Rasch model, suggesting that a single underlying utility or trait was being measured.

Table 4.4  
*Values according to Rasch Model*

Item acceptable values	Values attained for pre-program Survey	Values attained for post-program Survey
Infit (mean squared) 0.6 to 1.4	0.85	0.84
Infit $t$ -2 to +2	-2 to +2	-2 to +2
Outfit (mean squared) 0.6 to 1.4	0.82	1.08
Item reliability > 0.7	0.88	0.82

#### 4.4.2.5 Data Analysis

Since the survey consisted of both open ended and closed questions, they were analysed separately using different methods. The closed questions were analysed by entering the information obtained in an Excel spreadsheet, which was then imported into SPSS 17.0 (Levesque, 2009). The descriptive statistics using SPSS software were used "to facilitate the description and summarisation of data" (Cooksey, 2007, p. 39). In other words mean, mode, standard deviation and frequency tables were created which were later converted to pictorial and graphical forms. In addition, frequency tabulation provided a convenient counting summary that facilitated the interpretation of the findings.

The open-ended questions were analysed using a matrix. The matrix was developed and adapted to the requirements of the present research (Miles & Huberman, 1994; Strauss & Corbin, 1998). The work of Bazeley (2009) informed this analysis; themes were the starting point for the generation of ideas generated as data and arguments were established. The themes were derived from the literature as well as from responses to the respective questions. A pattern coding system was implemented using different colours for different themes. Table 4.5 shows the themes that were developed to address a research question regarding pre-service teachers concerns' before starting the preparation program.

Table 4.5  
*Pre-service Teachers' Concerns Before the Preparation Program*

Colour Code	Themes	Relevance to Literature	Frequency	Percentage
	Teaching & managing a MC	(Hales & Tarasomo, 2006)	050	33
	Content of the preparation program	(Bingham & Waisale, 2005; Hussain, 2006; Ninnes, 2006; Phommabouth, 2006; Pridmore, 2006; Yembuu, 2006)	021	14
	Having no Concerns	(Bingham & Waisale, 2005)	021	14
	Learning MC strategies	(Bray, 1987; Collingwood, 1991; Kalaoja, 2004)	020	13
	Readiness for the practicum	(Barry & King, 1998; L Cornish, 2006; Pridmore, 2007; Wilken, 1996)	016	11
	Effectiveness of the program	(Aikman & El Haj, 2007; Ali, 2004; Kalaoja, 2004)	015	10
	Miscellaneous	(Lingam, 2007; Ninnes, 2006; Pridmore, 2006)	007	05
	Total Responses		150	100

The analysis also addressed why certain issues were highlighted as concerns and how the concerns could be addressed by the MC preparation program. Describing, comparing and relating were some of the strategies employed to further analyse each theme and the themes' appropriateness in addressing the research question (Bazeley, 2009). All six open ended questions were analysed in this way. In addition, NVivo, the qualitative software, was used to further strengthen the data analysis process. Similar themes were created in NVivo eighth version (see Appendix C.1) as the tree nodes and the responses were posted accordingly (Silver & Lewins, 2009). Having both pre-program and post program data made analysis more meaningful and effective.

#### 4.4.4 Interviews

Interviews were used as the main data gathering tool for most of the study; the opinions and views of pre-service teachers, lecturers and associate teachers were needed to better understand the dynamics of the MC program and subsequently the MC practicum. It was only through interviews that relevant data could be collected to address fully the four research questions (Minichiello, Aroni, & Hays, 2008). These interviews were constructed to enable the triangulation of data related to the four research questions. Other researchers have also used such a strategy to answer their research questions (Berry, 2007; Reinharz, 1992; Sommer & Sommer, 1980; Vithanapathirana, 2007; Vu & Pridmore, 2007).

There are a number of types of interviewing methods, including unstructured, semi-structured and structured. Each has its own strengths and weaknesses. Unstructured interviews are non-directed and flexible. Such interviews are often casual in approach and do not follow a detailed interview guide. Semi-structured interviews are non-standardised and frequently used in qualitative analysis. In this type of interview the order of the questions can be changed depending on the direction the interview takes (Corbetta, 2003). The interviewer uses an interview guide, but can ask additional questions, often in form of probes. A structured interview is a standardised interview where all respondents are asked the same questions with the same wording and in the same sequence (Cohen et al., 2007).

I selected semi-structured interviews because they had a strong focus on the informant's perspective, which was the most important consideration for addressing the research questions. Semi structured interviews allowed me to be flexible and ask follow-up questions as appropriate. I sought clarifications when I thought responses were not clear and gave prompts to elucidate answers when necessary.

Several researchers support the use of semi-structured interviews. Reinharz (1992), for example, notes that the use of semi-structured interviews provides better access to

informants' ideas, thoughts and memories. Similarly, Sommer and Sommer (1980) consider that semi-structured interviews help obtain in-depth information about the informants' perceptions of their environment and their experiences. The underlying principle behind semi-structured interviewing is that the only people who understand the social reality in which they live are the people themselves. Morse and Niehaus (2009) note that, "semi-structured interviews are used when the researcher knows enough about the topic" (Morse & Niehaus, 2009, p. 92). This situation was applicable in my case as I have in-depth knowledge of MC from previous studies (Ali, 2004).

Other studies also used the interview technique to gather data: interviews were successfully used by Berry (2007) in a study to compare the difference between multi-grade and mono-grade classes in Turks and Caicos Islands; Vithanapathirana (2007) used interviews as one of her research tools in a project to find the impact of an intervention to improve multi-grade teaching in Sri Lanka; Vu and Pridmore (2007) used interviews in a study to determine the quality of Health education in multi-grade schools in the northern highlands of Vietnam.

However, Liamputtong and Ezzy (2008) expressed concern about the lack of information regarding discussion of the rationale for using interviews rather than other methods. They argue that despite the interview method being commonly used by researchers "explicit and extended discussions about how the interviews were conducted, and about the issues and problems that arose are more difficult to find" (Liamputtong & Ezzy, 2008, p. 68). Similarly, the literature on the rationale for using interviews in MC situations is not explicit despite studies have been conducted using interviews (Berry, 2007; Little, 2007; Pridmore, 2007; Vu & Pridmore, 2007).

The interview sample selection, specifics of data instrumentation, data analysis and the procedures involved for the research for this thesis are discussed in the following sections.

#### *4.4.2.1 Research Sample for Interviews*

In order to address the research questions appropriately, it was important that pre-service teachers, lecturers and associate teachers were all interviewed. The experiences of all stakeholders were critical to understanding the nature of the perceptions of pre-service teachers. Associate teachers are those practising teachers who have been allocated pre-service teachers during the MC practicum; they act as role models for pre-service teachers and guide them during the six weeks of MC practicum. Lecturers not only assess pre-service teachers but also offer guidance and assistance during the MC practicum.

However, with the sudden promulgation of the State Service Decree 2009 (Government of the Republic of the Fiji, 2009b) there was a mass shortage of teachers. As a result the pre-service teachers were absorbed as full time teachers despite not completing their teacher education program. Eight pre-service teachers from the College who were posted to MC schools in the western division were also interviewed during July 2009 to obtain their views about how they felt about the MC program now they were in full time employment. These teachers had been in their schools for about six weeks and were undertaking full time teaching duties. The employment of these pre-service teachers was an extraneous event due to the sudden reduction of the retirement age. As such, interviewing them was not planned initially. However, I was able to take advantage of this situation by interviewing some of them in their new MC schools. This effectively resulted in a fifth phase in the research design. Clearly, this phase had not been anticipated earlier and as such is not included in the original design.

Selecting a research sample is a pressing issue frequently raised by researchers. According to Fraenkel & Wallen (2006) researchers are always concerned with what can be labelled as an adequate size for a sample especially in qualitative research. Most qualitative studies have a smaller number of participants than quantitative studies because of the

difficulty of managing and analysing interviews conducted on a large scale (Liamputtong & Ezzy, 2008).

There are many types of sampling, including random sampling, systematic sampling, stratified sampling, and snowball sampling. Interviewing is a time-intensive activity. Due to budget and time constraints, it was not possible to interview all 150 pre-service teachers during each of the four stages of the study. It was also impracticable to interview 150 associate teachers and tutors as the MC schools are scattered and situated in rural and remote areas. It is “very difficult for a single researcher to be involved in more than 100 long and complex social interactions” (Minichiello et al., 2008, p. 174). Thus a small manageable sample was selected because interviewing is time-intensive research.

Purposive stratified sampling was used to get the suitable sample size for interviews. This sampling strategy requires identification of a particular criterion and selection is based accordingly (Minichiello et al., 2008). The selection took into consideration gender, ethnicity, and experience (or lack of) with MC education when the participant was in primary school.

Sample selection method is an aspect of the interpretive paradigm which “relies upon purposeful rather than representative sampling” (Lincoln & Guba, 1985, p. 102). Moreover, purposive sampling is “very different from conventional sampling. It is based on information, not statistical considerations. Its purpose is to maximise information, not facilitate generalizations” (Lincoln & Guba, 1985, p. 202). Teddlie and Tashakkori (2009) agree with the views expressed by Lincoln and Guba (1985) and further state that purposive sampling is typically associated with “selecting a relatively small number of units because they can provide particularly valuable information related to the research questions” (p. 25).

Taking the above suggestions into consideration, I selected a sample of 25 pre-service teachers for interviewing. The intent was to interview this cohort of 25 teachers during each of the research phases. However, the interview sample changed slightly because three of the

pre-service teachers were suspended from the institution during the course of the research. Replacements were not sought as new participants would break the consistency, thus only the views of 22 participants were used in the research. The gender and ethnicity of the participants is presented in Table 5.1 in Chapter 5. Similarly, 10 lecturers and 10 associate teachers were selected on the basis of availability and accessibility. Minichiello et al (2008) also suggest that research location and time constraints need to be taken into consideration when deciding upon a sample size. Table 4.6 shows a summary of the sample that was selected for the interviews.

Table 4.6  
*Research Sample for Interviews*

Participants	Total planned participants	Total number of respondents
Pre-service Teachers	25	22
Associate Teachers	10	10
Lecturers	10	10
Pre-service Teachers employed as full time teachers	0	8

#### 4.4.2.2 Instrumentation

Five sets of interviews took place with the pre-service teachers; four were during the course (each phase) of the MC program. One was when eight pre-service teachers were employed as full time classroom teachers. Selected lecturers and associate teachers were also interviewed during the practicum. Interview protocols were developed that took into consideration the participant, the phase and the research question, which were then piloted.

*Interview Protocols:* The first set of interview protocols was developed to uncover the concerns and expectations of pre-service teachers prior to taking up the MC program. The questions were drafted on the basis of the literature review and an analysis of the key documents related to multi-grade teaching (Bingham & Waisale, 2005). The protocol

consisted of six core questions aimed at addressing the first research question. The questions focused on getting baseline information about what the pre-service teachers believed MC teaching was. The questions also sought to discover the concerns and expectations of the pre-service teachers with regard to the MC preparation program and the practicum (Appendix B.2).

The next set of interview protocols developed was a follow-up from the first and aimed at substantiating the effectiveness of the MC unit prior to the MC practicum. The questions focused on issues relating to preparation, classroom management skills, teaching strategies and readiness for practicum (Appendix B.3). The interview protocol that was used during the practicum consisted of five core questions aimed at addressing issues regarding school environment, classroom management, classroom organisation, availability of teaching resources and effectiveness of the MC preparation program (Appendix B.4).

The interview protocol used at the end of the program consisted of six core questions designed to consider the overall effectiveness of the MC preparation program (Appendix B.10). The protocol had questions addressing issues regarding teaching strategies, content of the program and relevancy of the program during practicum. The questions also focused on some of the concerns regarding the MC unit and the practicum, and sought suggestions for change and improvement. The interview protocol developed for the pre-service teachers who were to be employed later as full-time classroom teachers had similar questions to the second interview protocol but also addressed the final research question (Appendix B.11). However the latter was more practical as it focused on what aspects of the preparation program and the practicum interviewees thought were working or not working in the real situation of full time employment. It had questions such as “what aspects of the MC program were you able to implement in the classroom?” and “did you discover any new strategy being implemented in the school apart from what you learnt?”

The remaining two interview protocols were developed to elicit the views of Associate Teachers (Appendix B.5) and the Lecturers (Appendix B.6) about the performance of pre-service teachers during the MC practicum as well as the overall MC preparation program. The protocol for associate teachers was aimed at getting their views about the effectiveness of the MC program as preparation for the practical situation and how they were helping the pre-service teachers to accomplish the requirements of the practicum. The protocol for the lecturers targeted their views about how effectively the pre-service teachers were able to implement the MC strategies in the classroom.

*Pilot Testing:* It was not possible to pilot all the interviews as they were designed for different phases and were bounded by time constraints. However, a pilot testing of the fourth phase interview protocols took place with the intention of making changes based on the feedback from the participants. The participants had already completed their MC practicum and were on the verge of completing the MC program. The survey was piloted in 2008. Upon the completion of each interview, ten interviewees were asked to express their opinion regarding the interview. A matrix was developed and was filled in on the spot (see Appendix B.12). The findings revealed that the questions were well structured, simple and relevant.

#### *4.4.2.3 Procedures*

In semi-structured interviews, an interviewer can be easily carried away when the conversation becomes interesting, and the information sought may not be actually addressed (Minichiello et al., 2008). Cohen and Manion (1994) have similar view that, although the semi-structured interview is a more casual affair, it also has to be carefully planned. I was able to foster a relationship of mutual trust and respect and there was no room for bias responses as I was not involved in the teaching of the MC program in any way. The first set of interviewees was the pre-service teachers.

*Pre-service Teacher Interviews:* Interviews were conducted in each of the four phases (Figure 4.1). Interviews took place during the pre-service teachers' free periods and during the afternoons after lectures. The interviews lasted for an average of about fifteen minutes. All were recorded digitally. The second round of interviews took place after six weeks of lectures. This was quite a hectic time as pre-service teachers were attending their final lectures, handing in their assignments, collecting resources for the practicum and getting mentally and physically ready for the practicum. The interviews took place at the Teachers College late in the afternoons.

The third phase of the interviews took place during the MC practicum. A four-wheel-drive vehicle was used to visit interviewees because their postings were in rural and remote areas; most of the schools could only be accessed in good weather because roads become flooded and bridges washed away during rain periods. Despite adverse environmental conditions, visits were still made to interview the sample of 22 participants. The fourth set of interviews was conducted when pre-service teachers returned to the college and completed the MC program during the last week of semester.

Due to compulsory mass retirements in the civil service on 30<sup>th</sup> April 2009, all pre-service teachers were immediately absorbed into full time teaching from the beginning of the second semester. This presented an opportunity to extend the research to include teachers in the real context. Most of the cohort of respondents was posted to schools having straight classes but eight were posted to MC schools in the western division of Viti Levu. The eight were interviewed about their perception of the MC preparation and how the MC experience was helping them in the real classroom situation. As mentioned previously, these eight interviews constitute a small fifth phase in the research.

*Associate Teacher and Lecturer Interviews:* Associate Teachers and Lecturers were interviewed during the practicum. The associate teachers were interviewed in the schools

during recess and lunch breaks. The lecturers were interviewed when they were free, either in their rooms or under the shade of a big mango tree in the square in front of the administrative block at the Teachers College. However, two of the lecturers were interviewed after the practicum as they were extremely busy and could not be located during the practicum.

#### *4.4.2.4 Data Analysis*

Data collected from interviews were analysed using the convention advocated by Cohen, et al. (2003). This convention clearly states that all interviews have to be transcribed in their entirety and the interview scripts have to be well organised. Only listening to the interviews and then analysing them is not a good practice, and usually leads to inferior analysis. “Analysing open-ended response of this sort involves a significant amount of time, energy and expertise” (Devlin, 2006, p. 73). A matrix was designed where all the transcribed interview data were entered (see Appendix B.13).

Similar themes from different interviews were quantified and given numerical values. The number of times themes occurred provided the frequency of occurrences, and patterns and themes were recorded (Minichiello, Aroni, Timewell, & Alexander, 1996). Relevant quotations were also noted “using as much as possible the literal words of the participants” (Cohen et al., 2003, p. 285). I believe that the analytical technique chosen for this research is justifiable given the care taken because “no matter what specific analytic strategy or techniques have been chosen, you must do everything to make sure that your analysis is of the highest quality” (Yin, 2003, p.137). In order to get the highest quality data, the manual analysis described above was also complemented through the use of NVivo. Since all the interviews were already transcribed into Microsoft Word they were easily imported into NVivo for analytical purposes (see appendix C.2).

#### 4.4.5 *Nonparticipant Observations*

Observation was selected as one of the methods because there were certain issues in the research that could not be addressed by the use of surveys, interviews or documents.

Observation was needed to determine whether pre-service teachers were actually able to implement the MC teaching strategies during the practicum or not, and whether they were able to put into practice classroom management skills. Observations complemented the perceptions (survey and interview) of pre-service teachers with regard to the MC practicum.

Observations have been used previously in similar research concerning multi-grade education. For example, apart from interviews, observations were used as a research tool by Vu and Pridmore (2007) in a study conducted to find the quality of health education in multi-grade schools in the northern highlands of Vietnam. Initially, interview data revealed that teachers were uncomfortable with children moving about and lacked confidence in carrying out the activities. However, findings revealed that “in time, however, both teachers and students became accustomed to health lessons” (Vu & Pridmore, 2007, p. 184). Observations helped the researchers to establish the effectiveness of the intervention. Liamputtong & Ezzy (2008) agree that observations help to verify the results of other interactive approaches.

Observations were also used by Ames (2007) in a study to explore how teachers have developed a range of strategies despite lack of training to cope with multi-grade classrooms in Peru. Ames (2007) used observation because it best suits classroom studies, catching the dynamic nature of the events as they unfold thus allowing her to have a first-hand view of what was actually happening. As such, “observational data are attractive as they afford the researcher the opportunity to gather live data from live situations” (Cohen, Manion & Morrison, 2003, p. 305).

While observations have been often used in qualitative research, they have some drawbacks. For example, “one of the drawbacks of observation is that the interpretation of

what is observed may be influenced by the mental constructs of the researcher” (Grey, 2004, p. 239). Observations have to be focused and a researcher needs to know actually what is to be observed. Observations can be vague and voluminous but having a clear protocol made the work easy and manageable in this case.

There are two main roles a researcher can play during observation. A researcher can be a participant observer or a non-participant observer. The former actually engages in the activities while the latter “is an observer who visits a site and records notes without becoming involved in the activities of the participants” (Creswell, 2008, p. 222). I assumed the role of a non-participant observer to attempt to perceive reality from the viewpoint of an insider without interfering with the participants. I obtained prior consent to reduce the perception of intrusiveness by those being observed. Further, to avoid any type of distractions, even videos and recorders were not used during observations, though my presence in the room may have had an effect.

#### *4.4.3.1 Observation Sample*

From the interview sample of 22 pre-service teachers, 10 were selected, using stratified purposive sampling to ensure gender and ethnic balance. The number was chosen to ensure manageability within the context of the research, taking into consideration the implementation of all the research methods during this phase of the research. The following sections discuss the specifics of data instrumentation, data analysis and the procedures involved during non-participant observation.

#### *4.4.3.2 Instrumentation*

The observation protocol was developed considering the participants, the research questions and the literature on MC. The most important aspect of observation is to actually know what is to be observed (Merriam, 1998). This basically depends on the research

question. An observation protocol (Appendix B.7) was developed which created an awareness of what, where and when to observe (Wilkinson & Birmingham, 2003). The observation protocol not only contained competencies to be observed but specific indicators that further justified whether the observation protocol had been achieved. The competencies to be achieved by pre-service teachers as specified by the Teacher College were used because they aligned with those identified in the literature review on MC education. Thus the observation protocol was comprehensive and simple to implement (Fraenkel & Wallen, 2006). Table 4.7 shows a sample of the observation protocol that was developed while the complete version is included as Appendix B.14. The indicators made the observation easy because it was straightforward to determine whether respondents had accomplished the requirements or not.

Table 4.7  
*Pre-service Teacher Observation Protocol*

Competencies Observed	Indicators	Comments
Plan and present MC lessons.	<ul style="list-style-type: none"> <li>• The pre-service teacher (PT) has prepared a MC lesson plan</li> <li>• PT uses learning resources that help explain/illustrate/practise the ideas/skills being taught</li> <li>• PT uses learning resources that are readily available in the practicum school/ community</li> </ul>	
Implement MC teaching strategies to benefit groups and individuals	<ul style="list-style-type: none"> <li>• PT lists the MC teaching strategies used by the Associate Teacher [AT]</li> <li>• PT demonstrates how the AT uses MC teaching strategies in teaching a number of class groups</li> </ul>	

#### 4.4.3.3 Procedures

Observations took place during the MC practicum in MC schools in rural and remote areas. A posting schedule was obtained from the practicum coordinator and a tentative itinerary was made to confirm that visits could be made to all the schools where the cohort of

22 teachers was posted. This situation enabled interviewing of the pre-service teachers as well as the associate teachers after the observation session.

#### *4.4.3.4 Data Analysis*

The protocol helped in the organising of information collected from the observation phase of the research. Pre-service teachers were given pseudonyms such as (PT01/B.7, 2009). PT meant pre-service teacher, 01 depicted the person, B.7 the appendix while 2009 represented the year. A tick meant the particular competency was observed at least once and a cross meant it was not (see Appendix B.14). The findings for each of the competencies were analysed and pattern coding was carried out (Creswell, 2009). A frequency count was carried out against each code and data were triangulated with that obtained through interviews and surveys. The observation data were also imported into NVivo under the respective tree nodes and analysed accordingly.

#### *4.4.6 Documents*

Analysing documents was the fourth and the final method employed in this study. The documents viewed in this case were pre-service teachers' journals and their practicum reports (Appendix B.8). These documents provided valuable information about how the pre-service teachers felt about the MC preparation program and, in the case of the latter, how the associate teachers judged students' work. Documents are a ready-made source of data which are easily accessible to the researcher (Harper, 1994). According to Rose and Webb (1998) public records, personal documents and physical materials are three major types of documents available to researchers for analysis.

Documents were used because they gave an opportunity to get a third person's view with regard to the data obtained. It also enabled me to better understand the views of participants in the research because the whole study is concerned with understanding participants' perceptions of the MC preparation program. Hussain (2006) used journals to get

the views of teachers in a study to explore the possibilities of improving MG practices in remote areas of Pakistan through planned intervention. Document analysis has been previously used by other researchers in similar studies regarding multi-grade teaching (Hussain, 2006; Ninnes, 2006; Pridmore, 2006; Veenman, Lem, & Roelofs, 1989; Vithanapathirana, 2007; Yembuu, 2004).

Personal documents are acknowledged as a “reliable source of information concerning a person’s attitudes, beliefs”, and experiences (Merriam, 1998, p. 116). Journals, being part of pre-service teachers’ MC unit, were chosen because they contained diary entries as well as reflections regarding the topics and their application to a MC context. The report provided tutors’ and associate teachers’ views with regard to the pre-service teacher’s ability in implementing MC strategies during the practicum. The journals were also used by the lecturers as part of each pre-service teacher’s assessment. The practicum reports were official documents and I am grateful to the Teachers College for allowing me unfettered access to the reports.

However, there are certain limitations associated with the use of documents as a data gathering tool. One of the drawbacks is over reliance on the veracity of the contents of documents; at times researchers take for granted that everything in documents is the truth, but documents are written for specific purposes and specific audiences (Creswell, 2009; Silverman, 2005). Researchers need to take such issues into consideration when reviewing documents as part of a research project. At times a researcher does not have unfettered access to the required documents due to the confidential nature of the documents. In this case, being an ex staff member of the institution reduced the problem of accessibility. As such, the analysis of the documents provided thick data towards understanding the perceptions of the pre-service teachers.

#### *4.4.4.1 Instrumentation*

A document analysis matrix was developed to record the information gathered from 10 journals and 10 practicum reports. The journals and practicum reports came from the cohort of the interviewees. In order to develop the matrix, the documents required and their relevance to the research questions had to be considered. Appendix B.15 was developed to analyse the journals and the practicum reports.

#### *4.4.4.2 Procedures*

Documents were analysed at the end of the practicum and information relevant to the respective phases was duly recorded. Special arrangements were made with lecturers and the pre-service teachers for collection of the practicum journals but only ten reports were obtained from the practicum coordinator. After entering the data, the journals and the reports were returned to pre-service teachers and the practicum coordinator respectively. Similar procedures were also implemented by Vu and Pridmore (2007) in a study conducted to find the quality of health education in multi-grade schools in the northern highlands of Vietnam.

#### *4.4.4.3 Data Analysis*

A data analysis matrix was developed, which was a slightly modified version of the data recording matrix (see Appendix B.16). The matrix shows a sample of how the data were analysed. Direct quotations from the documents provided evidence to certify whether pre-service teachers were able to accomplish all the MC competencies satisfactorily or not. Themes were developed from the findings and were later counted for the number of occurrences, resulting in frequency data. This information was tabulated and converted into graphs and diagrams for interpretation purposes. The data were also imported into NVivo and triangulated with data from other sources such as interviews and observations for analyses.

#### 4.4.7 *Summary of Methods*

This research was conducted using an embedded design with quantitative methods providing supporting and additional information not available from primary sources (Creswell, 2008). Therefore, data were analysed separately and later merged and triangulated as appropriate. Triangulation is a technique used to fully exploit the richness and complexity of human behaviour by using two or more methods of data collection (Miles & Huberman, 1994). Triangulation is important because the exclusive use of only one method may bias or distort the researcher's understanding of reality. Triangulation helps in clarifying issues and reduces the likelihood of misinterpretations (Denzin, 1989; Goetz & LeCompte, 1984). Also, triangulation allows a range of perspectives to be gathered, adding to the richness of the data interpretation.

The “combined strengths” of the mixed methods implemented in this study helped to effectively address the research questions. Researchers (for e.g., Creswell, 2009; Morse & Niehaus, 2009; Onwuegbuzie & Teddlie, 2003; Teddlie & Tashakkori, 2009) state that mixed methods is often the best way to address complex studies. The present study was complex as MC is multifaceted and has a limited literature base. Table 4.8 shows the research matrix used in the research for this thesis (Smyth & Maxwell, 2008).

Table 4.8  
*The Research Matrix*

Research Question	Source of data, who to contact	Method of Data Collection	Key words or phrases	Data Analysis	Triangulation
What concerns do pre-service teachers have about MC teaching prior to undertaking their MC program?	Second year pre-service teachers Cohort of 22 pre-service teachers	Survey Interviews	<ul style="list-style-type: none"> <li>• Program content Strategies</li> <li>• Classroom management</li> <li>• Expectations</li> <li>• Readiness for practicum</li> <li>• Availability of resources</li> <li>• Program effectiveness</li> </ul>	SPSS for the quantitative part NVivo for the open ended questions and the interviews. Developed matrix and used coding and themes manually	Data collected using the surveys were used to complement the data collected using the interviews.
What aspects of their MC Unit do pre-service teachers perceive will be effective during their practicum?	Cohort of 22 pre-service teachers	Interviews	<ul style="list-style-type: none"> <li>• Competencies</li> <li>• Classroom management</li> <li>• MC Program duration</li> <li>• Time management</li> <li>• Readiness for practicum</li> </ul>	NVivo and used manual coding of themes	The data collected were viewed in light of data collected previously as the same cohort was used
What aspects of the MC Unit are relevant and applicable during their practicum?	Cohort of 22 pre-service teachers 10 Pre-service Teachers 10 Lecturers 10 Associate Teachers 10 Pre-service Teachers	Interviews Observations Interviews Interviews Documents	<ul style="list-style-type: none"> <li>• Classroom organisation and management</li> <li>• MC strategies</li> <li>• Teaching resources</li> <li>• Culture shock</li> <li>• Practicum issues</li> <li>• Environmental issues</li> <li>• Support structure</li> <li>• Duration of MC program</li> <li>• Concerns</li> </ul>	NVivo and used manual coding of themes	The data collected from interviewing the pre-service teachers, the lecturers and associate teachers were triangulated with observations and documents to get the holistic response to this question
How effective do pre-service teachers perceive their overall MC program was in preparing them for MC teaching?	Second year pre-service teachers Cohort of 22 pre-service teachers 8 Pre-service Teachers employed as full time teachers	Survey Interviews Interviews	<ul style="list-style-type: none"> <li>• Effectiveness of the MC program</li> <li>• Lack of continuity</li> <li>• Practicum issues</li> <li>• MC teaching strategies</li> <li>• Suggestions for improvement</li> <li>• Gaps</li> <li>• Teaching resources</li> <li>• Duration of MC program and practicum</li> </ul>	SPSS for the quantitative part NVivo for the open ended questions and the interviews. Developed matrix and used manual coding of themes	Data collected using the post-program survey was used to complement the data collected using the interviews

#### 4.5 *Quality Criteria*

Whatever methodology is selected for collecting data for a research study, it should always be examined critically to assess to what extent it is likely to be dependable and legitimate. In a mixed method research, validity has to do with the ability of the researcher to understand and represent people's meanings accurately. In other words, the researcher must have confidence in the quality of the data and its interpretation (Coll & Chapman, 2000).

The means of establishing confidence in a largely qualitative inquiry are different from those in conventional positivist-based inquiries. According to Guba and Lincoln (1989), when assessing the quality (trustworthiness) of data from a mixed method design employing predominantly qualitative methods, four criteria are typically used: credibility (somewhat equivalent to internal validity), dependability (equivalent to reliability), confirmability (equivalent to objectivity), and transferability (equivalent to external validity). As such, in order for a research to be considered meaningful and significant the findings need to be realistic and credible.

##### 4.5.1 *Credibility*

Credibility (authentic representation of the subject's situation) is addressed through a declaration of researcher subjectivity and prolonged engagement of the researcher in the field (Lincoln & Guba, 1985). In the research for this thesis, prolonged engagement was promoted because I spent more than six months in the field with the participants. The prolonged engagement provided opportunities for me to become familiar with the participants and the environment, thus minimising the effects of misinformation.

In addition, I engaged in peer debriefing with my supervisors from Australia during the data collection in Fiji via electronic mail. The supervision sessions and peer debriefing meetings contributed to several aspects of the research as it progressed, including teasing out

and discussing unexpected and expected issues that emerged from the data. The credibility of a qualitative inquiry is also enhanced by persistent observation and member checks, which occurred frequently during the research. Having a working space at the Teachers College during the data collection period facilitated this checking because it was easy to ask the participants informally to further discuss and clarify issues that emerged in previous interviews with them to confirm the accuracy of information (Miles & Huberman, 1994). Trustworthiness was enhanced by data triangulation, and confidence in the findings was assured because data collected by the different methods substantially produced similar results (Fraenkel & Wallen, 1996).

#### 4.5.2 *Transferability*

Transferability simply means the extent to which the findings are applicable across similar situations. Since a case study research design is used, the applicability of the findings will solely depend upon the readers as “the real business of case study is particularization, not generalization” (Stake, 1995, p. 8). However, an extensive and careful description of the time, the place, the context and culture in which the study took place has been provided. Chapter 3 provides a detailed description and analysis of the context and other relevant aspects of this study. This comprehensive set of information contributes to transferability of judgments to others who can then make up their own minds about the extent to which the data from the case are applicable to their own situations.

This means that in a case study, the burden of deciding transferability is shifted from the researcher to the receiver; it is the reader who decides if the findings are relevant or pertinent to their own situation (Guba & Lincoln, 1989). The usual way of facilitating transferability judgements is via what is called ‘thick description’ (Stake, 2000). Detailed

description of the context, methodology and findings including portions of verbatim transcripts are presented in Chapter 5.

#### 4.5.3 *Dependability*

Dependability “is concerned with the stability of the data over time” which is similar to reliability (Guba & Lincoln, 1989, pp. 242-243). It is related to whether the research process undertaken was logical and coherent (Guba & Lincoln, 1989; Miles & Huberman, 1994). The data collecting instruments, such as the survey items were assessed in terms of reliability and the results were quite positive when taking into consideration the complexity of the study. The present study is judged as dependable because findings from the different phases complemented one another.

Dependability can be established through an inquiry audit (Maykut & Morehouse, 1994) and, in this particular study, can be carried out by the readers themselves. Inquiry audit enables readers to follow the development of the researcher’s theoretical framework by conceptualising the research questions together with the methods for collecting then analysing the data within a compatible paradigm. Moreover, the relevance of various data gathering tools used in this research can be verified by readers because copies of all questionnaires and protocols used are available in the appendices. The dependability of the findings can be further established by thorough analysis of the content, structure and appropriateness of the research tools (Coll & Chapman, 2000).

#### 4.5.4 *Confirmability*

Confirmability “is concerned with ensuring that data, interpretations, and outcomes of inquiries are rooted in contexts and persons” other than the researcher’s views (Guba & Lincoln, 1989, pp. 242-243). It is related to the methods adopted by the researcher to interpret and make sense of respondents’ views (Guba & Lincoln, 1989; Miles & Huberman, 1994).

Triangulation over data collection methods, as used in this study, is also useful in establishing confirmability. Field notes also aid in establishing confirmability of findings. In the study reported here, interpretations are supported by results and are internally coherent. This assertion can be confirmed by conducting a confirmability audit. A confirmability audit reveals to what extent the results are grounded in the data, whether inferences are logical and “whether there is inquirer bias” (Teddlie & Tashakkori, 2009, p. 296).

Since I had worked at the Teachers College previously, I was able to provide a rich and thick description and this gave the discussion “an element of shared experiences” and provided “an in-depth understanding” of the study (Creswell, 2003, p. 196). However, I was not in any way involved in the planning and teaching of the MC program as I was on official study leave. The new cohort of pre-service teachers enrolled in the Diploma in Primary Education program began their studies after I had left the Teachers College. Thus there was not any conflict of interest as I was totally independent. These factors contributed towards increasing the confirmability of the research. Every effort was made to minimise bias as there is always a risk of it in qualitative research. The foregoing explanation of my relationship to the Teachers College addresses Merriam’s (1998) concern that researchers need to explain their position so that there is no bias during the research process.

Thus in the present study, all attempts have been made to enhance the credibility, applicability, dependability and confirmability of the findings to the extent that it can be established that the study is “worth paying attention to” (Lincoln & Guba, 1985, p. 290).

#### *4.6 Ethical Considerations*

Ethical issues were taken into consideration throughout the course of this study in accordance with the guidelines of the University of New England’s Human Research Ethics Committee.

Ethical research involves obtaining the informed consent of those to be studied whether by interview, questionnaire, observation or consideration of documentation. It involves reaching agreements about the uses of data about and from those to be studied, and how analysis will be reported and disseminated. Ethical research is also about keeping to such agreements once they have been reached (Blaxter, Hughes, & Tight, 1996, p. 146).

Such views of ethical research are in line with those expressed by Fontana and Frey (1994); that is, research should not exploit informants but enhance their confidence so that they voluntarily share worthwhile information with the researcher. According to Merriam (1998) the best an individual researcher can do is to be “conscious of the ethical issues that pervade the research process, from conceptualizing the problem to disseminating the findings” (p. 184).

Approval of the University of New England’s Human Research Ethics Committee (HE08/107) as well as Ministry of Education (E24/2/3), Fiji, had been received to conduct the research for this thesis. Questionnaire surveys, interviews and documentary analysis reports were all bounded by ethical considerations. The confidentiality of the respondents and the institution were respected and was paramount.

#### *4.7 Summary*

This chapter provided a detailed description and justification of the research paradigm, design and methodology employed in this research. After justification of the sample selection the discussion turned to description and explanation of instrumentation and the data analysis process. The concluding sections of this chapter stressed the importance of establishing quality criteria and having sound ethical principles in the conduct of the study.

Chapter 5 discusses the research findings, taking into consideration the mixed methods that were implemented during the data gathering process.

## Chapter 5: Findings and discussion

### 5.1 Introduction

This chapter discusses the findings that were obtained using mixed methods. The findings are presented sequentially for the five phases of research question. SPSS was used to analyse quantitative data while the qualitative data were analysed using NVivo and manual manipulation.

### 5.2 Consolidating the Findings

Mixed methods demand that data from different sources be interpreted and discussed together. In a concurrent mixed methods study “the analysis and interpretation combines the two forms of data to seek convergence or similarities among the results” (Creswell, 2009, p. 220). As a result, the data collected for this study were consolidated by combining them into new data sets (see Figure 5.1). Data from the different sources were also compared for compatibility and integrated accordingly to obtain an overall and holistic view of the findings. The data from the different sources were transformed and triangulated resulting in high quality information.

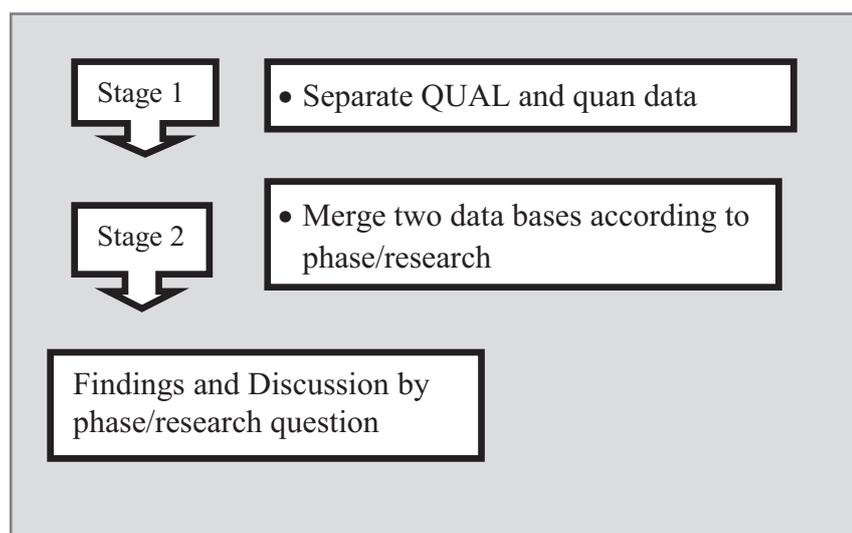


Figure 5.1. Data consolidation. Adapted from Creswell and Clark, (2007, p. 137)

The following sections provide a thorough and comprehensive discussion of the findings, merging the richness of qualitative and quantitative data (Creswell, 2009; Johnson & Turner, 2003; Teddlie & Tashakkori, 2003). The findings are presented in the same sequence as the phases/research questions were administered, and are discussed under relevant themes that resulted from the analysis of the data using the different methods.

The discussion in the following sections centres on the major concerns and expectations of the pre-service teachers of phase 1 of the study.

### 5.3 Phase 1: Concerns and Expectations prior to the Program

The first phase of the research was conducted before pre-service teachers undertook the MC program. The research question addressed here was: *What concerns do pre-service teachers have about MC teaching prior to undertaking their MC program?* The aim was to obtain baseline data on the pre-service teachers' conceptual understanding of the term MC, and their concerns and ultimate expectations of the MC program. A survey was administered and interviews were held concurrently (see Chapter 4, Table 4.1).

#### 5.3.1 Study Population

The survey was administered to 158 pre-service teachers with 150 responses, giving a participation rate of 95% (see Table 5.1)

Table 5.1  
*Pre-program Survey Population*

Ethnicity/Gender	Males	Females	Total	Percentage
I-Taukei	30	45	75	50
Indo-Fijians	36	33	69	46
Others*	0	6	6	4
Total	66	84	150	100
Percentage	44	56	100	

\* 1 part-European, 1 part-Chinese, 1-Tongan and 3 Rotumans

The interview population was well balanced in relation to the gender and ethnicity of the participants (see Table 5.2). Table 5.2 also shows that 50% of the participants had gone

through a MC primary school and had some experience of the context while, for the other 50%, MC was totally a new concept.

Table 5.2  
*Interviewee Population*

Ethnicity/Gender	Males	Females	Had previous MC experience	Total	Percentage
I-Taukei	4	6	5	10	45
Indo-Fijians	6	5	5	11	50
Others	0	1	1	1	5
Total	10	12	11	22	100

The following sections discuss the perceptions of pre-service teachers prior to the MC program.

### 5.3.2 *Preconception of Multi-class Teaching*

The first open-ended question in the survey (see Appendix B.1) and the first three interview questions (see Appendix B.2) tried to elicit pre-service teachers' understanding of MC teaching. Most pre-service teachers seemed to have a basic understanding of the MC concept despite the fact that they had not received any formal tuition about it. The most common response was that MC involved having two classes with one teacher. Table 5.3 shows the responses of 150 pre-service teachers to the first open-ended question in the survey. Some of the pre-service teachers related it to "composite classes" as this was the term used in Fiji prior to the introduction of the MC concept.

The findings reveal that, for most pre-service teachers, MC teaching involves teaching more than one class, that is, a structural issue. However, no respondent mentioned anything about covering the syllabus or different curriculum materials. Moreover, about half (48%) strongly agreed or agreed that they had ample knowledge about MC teaching. The findings elucidate the respondents' pre-conception of MC teaching; they assumed that MC teaching is where a teacher is in charge of two classes.

Table 5.3  
*Pre-service Teachers Pre-conception of Multi-class*

Tree Nodes/Comments	Percentage
Having two classes with one teacher	55
Teaching more than a class	18
Composite Class	8
Teaching children with different abilities	8
Two classes with children of different age groups	7
Teaching two classes at one time	4
Total	100

Table 5.4 also indicates that about 45% disagreed or strongly disagreed that they had ample knowledge of MC teaching. A further 6.7% were still unsure and hoped that, by the time they completed the MC program, they would have ample knowledge of teaching in MC situations.

Table 5.4  
*Response to Item Number 4: I have ample knowledge about multi-class teaching*

Remarks	Percentage
Strongly agreed	2
Agreed	46
Disagreed	36
Strongly Disagreed	9.3
Unsure	6.7
Total	100

### 5.3.3 Confidence in Teaching

Teaching is a skilful activity demanding important personal and professional qualities such as confidence and self esteem. The findings revealed that lack of confidence was a concern to the pre-service teachers before taking up the MC preparation program. Survey data revealed that about one third (33%) of the pre-service teachers stated that their major concern was teaching a MC on their own. Although, close to a quarter (22%) of the respondents had the experience of a home based MC practicum, they had doubts about how

they were going to teach two classes simultaneously (see Appendix C.3). Since the MC concept was quite new to them, most of them were confused or unsure about the nature of their schools. One of the comments made by a respondent during the interview was “first of all I would like to know what actually MC teaching is. What a MC school looks like and how teaching is actually done” (PT01/B.2, 2009). In a paper presented at the Southern African Multi-grade Education Conference it was highlighted that MC teaching is “more demanding”, “more difficult”, and “more time consuming” than single grade teaching (Juvane, 2010). This statement legitimises the concerns of the pre-service teachers, as they know that they will have to handle more than one class during the practicum.

Since many pre-service teachers did not have any experience in MC learning and teaching, they were worried about entering ‘uncharted waters’ for the first time. They expected the MC program to adequately prepare them to teach confidently and effectively during the practicum. Almost all (20 out of 22) pre-service teachers interviewed anticipated the MC program would not only prepare them theoretically but also practically. They hoped that the program had inbuilt mechanisms that would give them the opportunity to do micro-teaching and view videos of teachers teaching in MC situations. They believed such activities would enable them to develop their confidence level so that they would be able to take up the challenge of teaching in a MC situation from the outset of the practicum. Following are some of the quotes that reveal the aspirations of the pre-service teachers:

I think that from this education unit which is preparing me for multi-class, I will be in a position to teach any class in any school I am posted to and become a good teacher (PT18/B.2, 2009).

I am happy to do this program. I hope the program will give me enough confidence to stand in front of two classes and teach them (PT15/B.2, 2009).

Barry and King (1998) state that teachers need to begin their lessons with a confident and convincing approach.

#### 5.3.4 Classroom Management

Many (33%) of the pre-service teachers surveyed were concerned about managing a MC on their own for six weeks. Teaching and managing a MC seemed to be the main concern of the pre-service teachers (see Figure 5.2). Although they had not yet embarked on the new program, they raised the issue of effective classroom management skills because they had some experience of this issue from their first practicum in a non-MC context. It would be more demanding this time, they said, as they would be teaching two or more classes during their MC practicum. One of the interviewees raised her concern by asking “how are we going to teach two classes using different curriculum materials at once” (PT25/B.2, 2009).

This is quite a sophisticated understanding at this stage and the statement illustrates that pre-service teachers were concerned about classroom routines, how they would organise the seating arrangement for group work in the class. They were also concerned about coping with student behaviour and general seating arrangements in the classroom. Having adequate classroom management skills is very important for beginning teachers, especially those in MC contexts (Yembuu, 2006).

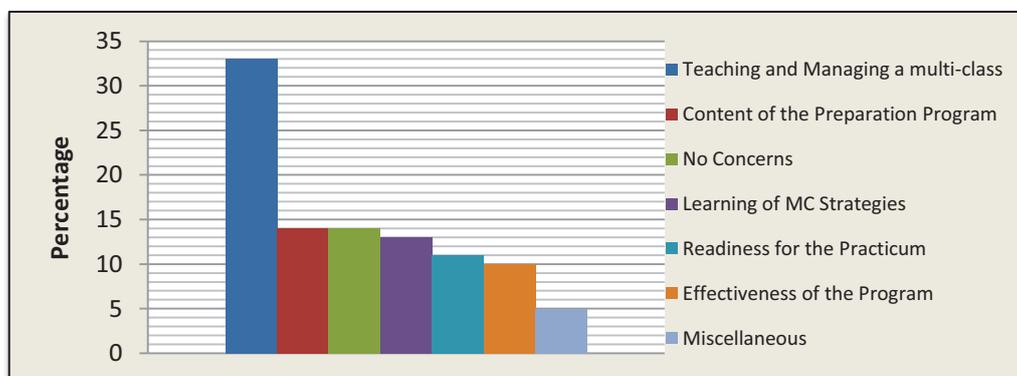


Figure 5.2. Response to item number C2: What concerns do you have before taking this unit?

In a MC situation, class management is a major area of attention as it takes into consideration space organisation, seating arrangement, activity corners and ventilation issues (Collingwood, 1991). Quantified survey data revealed that the majority (60%) of the pre-service teachers believed that the program would provide them with lots of information about MC teaching (see Appendix C.4). One comment made by a survey participant was “by the end I should be able to know how to plan lessons and teach a MC effectively” (PT16/B.2, 2009). For example respondents wanted to “learn a lot of things about MC teaching. Like how to plan lessons, how to take the class, how to take class control and how to cater for needy children” (PT01/B.2, 2009). Lesson planning plays a very important role in the lives of the teachers as it gives them a sense of direction and makes the learning outcomes achievable. Teachers need ample planning and advance preparation of teaching resources in order to make their lessons effective and enjoyable.

Five interviewees raised concerns about teaching more than one curriculum. They believed that the pre-practicum phase would introduce them to the different curriculum materials presently used in the schools and provide them with knowledge for teaching them during the MC practicum. They knew that each class had a set of curriculum materials but implementing two sets of curriculum simultaneously in a classroom was the issue. One of the interviewees stated that:

At the end of my course I should be able to teach in a rural school and if given a multi-class I should be able to develop my curriculum. Curriculum by the Ministry is mostly for single class teaching. From that I can look at it and develop my own curriculum (PT14/B.2, 2009).

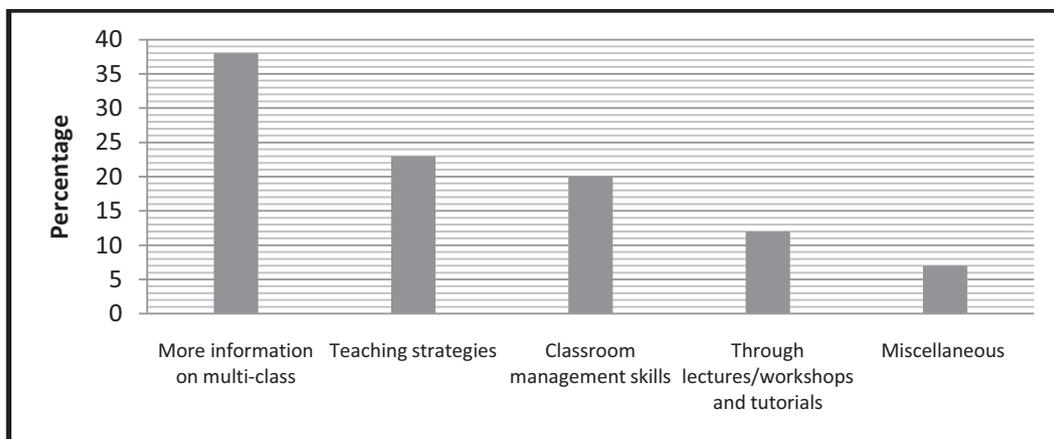
Concern regarding teaching and managing recorded the highest proportion as compared with other concerns raised by the participants (see Figure 5.2). These pre-service teachers expected

the pre-practicum program to provide them with clear directions in managing MC and at the same time provide them with curriculum organisation and management techniques.

### 5.3.5 *The Multi-class Practicum*

The practicum was viewed as the key component of the MC program and most of the concerns revolved around it. Pre-service teachers believed that the practicum would be where they implemented the knowledge and concepts learnt during the MC preparation phase.

Teaching practice is an important aspect of teacher training and pre-service teachers should be exposed to as many multi-grade teaching strategies as possible (Pridmore, 2007). Figure 5.3 shows the expectations of the pre-service teachers in regards to the practicum. Pre-service teachers hoped the MC preparation program would address their expectations accordingly.



*Figure 5.3.* Response to item number C4: How do you think 6 weeks of course work will prepare you for 6 weeks of multi-class practicum?

Over one third (38%) of the pre-service teachers anticipated receiving information on the dynamics of MC teaching. They expected the MC program to equip them with good knowledge and skills to enable them to complete all requirements of the practicum. About a quarter (23%) hoped that the teaching strategies would be really helpful during the practicum. Twenty percent of the pre-service teachers expected to gain knowledge and skills in

classroom management while others believed that they would make the best use of the lectures and tutorials to prepare for the practicum. They believed that the practical sessions during tutorials and workshops would provide them with sufficient knowledge and skills about MC teaching.

Some of the pre-service teachers were aware of the limited preparation time and findings from the first set of interviews revealed that they had certain reservations regarding the duration of the practicum. They believed that the 6 weeks of the MC practicum would not be enough to fully implement what they would learn during the preparation phase. They believed that settling down in the school environment and knowing the students and their background would take a lot of time. One of the pre-service teachers argued that “the practicum should be more than six weeks because it will take us time to know the students and the teachers well before getting into the details of MC teaching” (TT20/B.2, 2009).

These pre-service teachers were not yet ready to meet the challenges of teaching in MC situations because they had not yet started the MC Unit. While responding to one of the statements regarding their preparedness for the practicum (see appendix C.5), about half (51%) of them disagreed that they were ready to teach in MC situations. Thus it can be argued that the practicum was viewed by the pre-service teachers as a crucial part of the whole teacher education program. As such, pre-service teachers anticipated that the MC preparation phase would equip them with good knowledge and skills to enable them to successfully meet all the requirement of the practicum.

### *5.3.6 On-Campus Unit Delivery*

On the basis of the data collected it appeared that many pre-service teachers were concerned about the delivery of the on-campus MC Unit (preparation phase). Although the pre-service teachers did not question the capability of the lecturers in imparting the

knowledge, they were concerned about the lecturers' knowledge of MC teaching; they had a number of expectations from their lecturers (see Figure 5.4). Generally, they expected the lecturers to equip them with the latest innovations and practices in MC teaching. For example, “give us more information about MC teaching and train us fully to be able to teach effectively” (TT23/B.1, 2009).

Many of the survey respondents (41%) expected lecturers to brief them about MC strategies, while 19% expected lecturers to be helpful and understanding. Fifteen percent hoped that lecturers would help them in their assignments and in preparing resources, while 10% wanted to develop their classroom management skills. One of the comments made by a respondent was, “I expect them to guide us and help us during our misconceptions and address our questions when required” (PT117/B.1, 2009). Pre-service teachers expected the lecturers to share their experiences and provide them with a lot of examples and case studies about MC teaching.

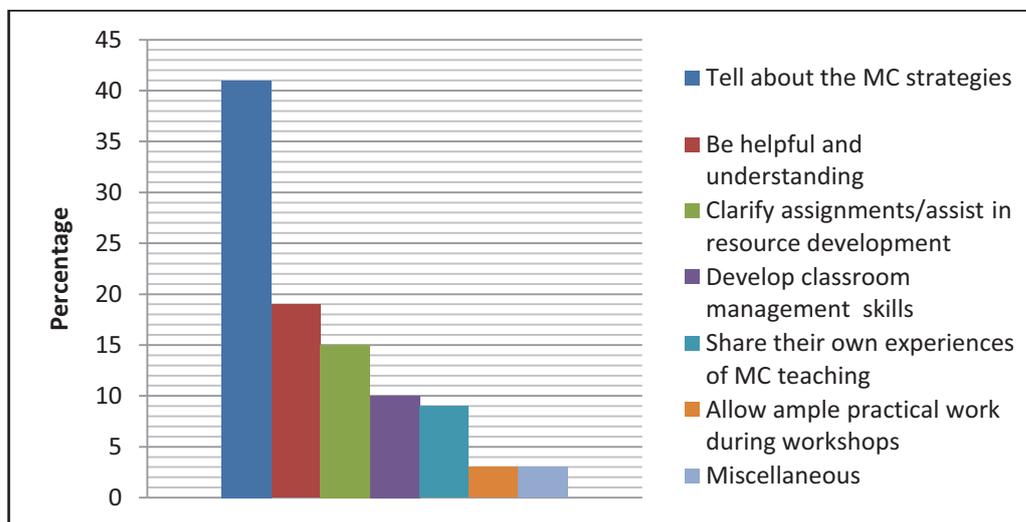


Figure 5.4. Response to item number C5: What type of support do you expect from your lecturers during your course work?

The data from interviews complemented findings from the surveys. The following are some of the typical comments made by interviewees in light of their expectations from the lecturers:

I need maximum support from the lecturers in explaining me thoroughly how to go about teaching MC effectively (TT30/B.1, 2009);

They share their own experiences and provide the videos and tapes of MC teaching (TT83/B.1, 2009);

I want my lecturers to prepare us to face the challenges during our teaching (TT119/B.1, 2009);

I need a lot of guidance, implementation of skills during tutorials, workshops and information on how multi-grade teaching is done (TT141/B.1, 2009).

Teacher educators need to have sufficient information about MC teaching and learning strategies so that beginning teachers can get the best knowledge and relevant MC skills (Vithanapathirana, 2010).

### *5.3.7 Overall Expectations*

Practically all (98%) of the pre-service teachers surveyed hoped that the on campus Unit would address their concerns and prepare them well for the practicum (see Appendix C.8). They had this perception despite not having had access to MC Unit materials; in other words, all the pre-service teachers either strongly agreed or agreed that they were looking forward to the MC Unit (see Appendix C.9). They hoped that the MC Unit would equip them with sufficient knowledge about teaching in MC situations. Following are typical views expressed by the pre-service teachers in regards to the MC program:

It seems to be a good program and I hope to enjoy it (PT05/B.2, 2009).

I think it's a very good program and it will help us a lot when we go out for our rural practicum (PT21/B.2, 2009).

The pre-service teachers were optimistic that their concerns would be addressed by the Unit and they would be able to complete all the requirements of the forthcoming MC practicum successfully.

### 5.3.8 *Phase 1 Summary*

The findings from the surveys and interviews provided the baseline data for the remainder of the study and indicated that pre-service teachers had a number of concerns regarding the on-campus MC Unit. They were concerned about the content of the MC Unit and its effectiveness in preparing them for the practicum. They were concerned about teaching and management issues in MC situations. Some of the pre-service teachers were concerned about the availability of relevant literature and the duration of the on-campus Unit prior to the practicum. Most of all they were concerned about the MC practicum and its requirements. Apparently, their concerns led to expectations and, as discussed earlier, pre-service teachers were quite optimistic that the on-campus MC Unit would adequately prepare them for the MC practicum. This assumption was probably due to the significance given to the on-campus MC Unit and their belief in lecturers' abilities to equip them with adequate knowledge and skills in MC teaching.

This leads now to the second phase of the study. The following section discusses the findings of the interviews that took place on the eve of their departure for the MC practicum; that is, after completion of the preparation phase.

### 5.4 *Phase 2 Effectiveness of Multi-class Unit*

The second phase of the research was undertaken after the pre-service teachers had completed the six weeks of course work and just before the practicum. The research question addressed here was: *What aspects of their MC unit do pre-service teachers perceive will be effective during their practicum?* The aim of this phase of the research is to determine the

effectiveness of the on-campus MC Unit (preparation phase) as perceived in advance of the practicum by the pre-service teachers.

#### *5.4.1 Study Population*

The same cohort of 22 pre-service teachers was interviewed during this phase of the study. Journals were sighted during phase 3 of the research, which also contained pre-service teachers' reflections on the preparation phase. This information together with interviews provided data to help understand the aspects of the MC preparation program perceived by the pre-service teachers to be effective for the practicum.

In phase two, pre-service teachers had completed six weeks of course work, and covered MC pedagogy and various classroom organisation and management issues. The lectures followed by workshops and tutorials were intended to adequately prepare them for the forthcoming practicum. The following section discusses the findings from phase 2 of the study.

#### *5.4.2 Confidence Level*

Almost all the pre-service teachers had anticipated that the on-campus Unit would provide them with sufficient knowledge and skills to confidently take up a MC practicum. To a large extent, the on-campus Unit seemed to have lifted the morale of the pre-service teachers because the majority (77%) of them stated they had gained enough confidence to be able to fulfil the requirements of the practicum (see Figure 5.5). Undergoing six weeks of intensive lectures, workshops and tutorials seemed to have a positive effect on the confidence level of the pre-service teachers. There was a massive increase (9% to 68%) in the confidence level of the participants in handling a MC from the first to the second phase.

About two thirds (68%) of the interviewees believed they were very confident or confident enough about handling a MC in the practicum while a further nine percent stated

they were ready to teach and felt just confident they could handle a MC for 6 weeks during the practicum. Some of the typical statements made by the interviewees were:

I am 90 to 95% prepared for the MC practicum; having gone over the six weeks of lectures, workshops and tutorials, I am quite confident as I have done sufficient preparations (PT05/B.3, 2009).

I am well prepared for the forthcoming practicum. I have done my preparations and I am quite excited to teach two classes for the first time (PT06/B.3, 2009).

For me I am fully prepared, because most of the topics and outcomes we have learnt in the class. I believe we have covered what needs to be covered (PT14/B.3, 2009).

However, findings also revealed that about a quarter (23%) still had a few dilemmas and were not confident enough despite the fact they had to leave for the practicum the following day. The following quotations further justify the above findings:

I am still not confident but I know lesson planning and how to take classes. I am still not sure how to divide them into groups, whether it is according to ability levels or mixed grouping. I am also not sure how to make the differentiated and integrated lesson plans (PT01/B.3, 2009).

Well I am not familiar with the requirements completely and also with the classroom management strategies. I am not really confident to take up a MC as yet (PT11/B.3, 2009).

I am quite prepared, not fully as this will be my first time to teach in a MC school. This is because handling two classes at the same time will not be easy for me but I hope that I will be able to manage (PT21/B.3, 2009).

After the sessions at the College, things on how to teach a MC are a bit clear but I am still a bit nervous (PT07/B.3, 2009).

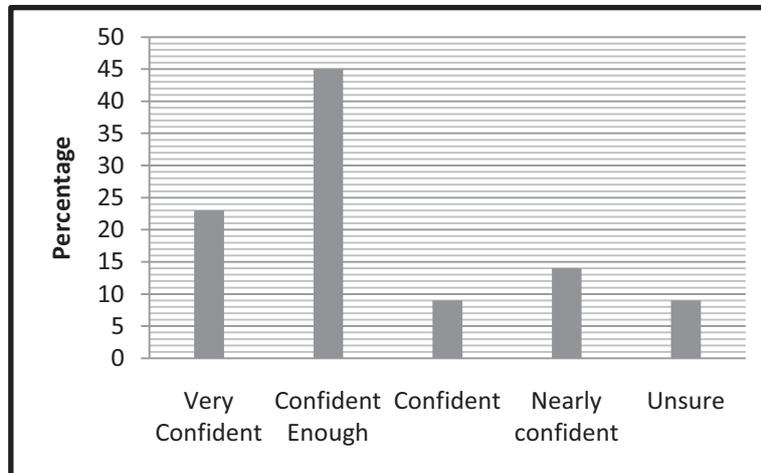


Figure 5.5. Confidence in handling a multi-class

On the whole, most of the interviewees seemed to have gained confidence in their ability to successfully complete the MC practicum. The specific aspects of the on-campus Unit that contributed towards building confidence will be discussed in later sections. One such aspect was the length of the preparation time prior to the practicum.

#### 5.4.3 Multi-class Teaching Strategies

Fifteen interviewees anticipated that their learning about MC teaching strategies would be most effective during the practicum. The major strategies that were covered during the preparation phase were integration and differentiation. In developing an integrated approach to curriculum planning, pre-service teachers identified relevant topics, units or issues that could be merged. They studied the benefits of integration and how it made the curriculum more accessible to the children. These pre-service teachers believed that integration would empower children to make connections between the different subjects taught at the school. One of the interviewees stated that:

Integrating is linking other subject areas into one. For example ‘tourism’ in social science can be linked to a topic on ‘money’ in mathematics. It can be integrated with ‘essay writing’ in English. I know we can teach them about tourism by discussing its advantages and disadvantages (PT08/B.3, 2009).

In developing an integrated approach to curriculum planning, pre-service teachers were informed during workshops and tutorials to identify relevant topics in different subject areas that could be integrated. They also had a supporting assignment where they had to develop an integrated lesson plan (see Chapter 3). The aim of the assignment was to create an awareness of how an integrated lesson could be planned. Pre-service teachers experienced the fact that in integration, the focus was on the learning process rather than curriculum content as it made the curriculum less fragmented and facilitated manageability.

Moreover, the MC Unit shows pre-service teachers specific examples of how integration can be facilitated in the school system. Enterprise education was mentioned in the MC Unit as an ideal vehicle for integration (Bingham & Waisale, 2005). Enterprise activities readily lend themselves to integration of language skills, technology, mathematics, science, and the arts. During tutorials and workshops pre-service teachers practise integration activities across the different subject areas. This makes learning more meaningful for pre-service teachers; one of the interviewees noted that, “even if you are taking Maths, it doesn’t mean you only teach Maths concepts, there is maths in other subject areas like art and integration makes learning more effective” (PT07/B.3, 2009).

Differentiation caters for the different developmental levels of the children and enables them to engage in activities at their own ability levels. Thus teachers have to design a range of learning activities (at least three) at varying degrees of difficulty (Bingham & Waisale, 2005). Apart from the lectures, pre-service teachers get hands on experience preparing such activities during workshops and tutorials. They also have an assignment where they have to

develop three differentiated activities. Most interviewees expressed their satisfaction with the knowledge and skills they had gained in preparing differentiated learning activities for the children. One of the interviewees expressed her satisfaction with the workshops and tutorials by stating that the opportunities to “design activities for different ability levels were very effective” (PT19/B.3, 2009). The following excerpts provide examples of the views expressed by some of the interviewees that suggest their opinions regarding the MC strategies:

Both integration and differentiation will be helpful because it is up to the content and the different subject areas (PT10/B.3, 2009).

I hope integration and differentiation will be helpful if we are allowed to use them. Dividing the children in groups will also be helpful as they can help one another (PT21/B.3, 2009).

The above quotes suggest that these interviewees perceived they had sufficient knowledge about the MC strategies and were looking forward to implementing them during the practicum.

#### *5.4.4 Lesson Planning*

Prior preparation and detailed planning are the hallmark of effective teachers. Planning is critical in a MC context. In the on-campus MC Unit, pre-service teachers covered background factors, such as ability levels, achievements, needs and special interests of students (Bingham & Waisale, 2005). The MC Unit enabled pre-service teachers to study the logistics of lesson planning taking into consideration MC teaching situations. Workshops and tutorials provide opportunities for pre-service teachers to design and develop integrated lesson plans. Lesson plans indicate the planned learning and teaching tasks for the day with

approximate time allocations and different learning tasks. They identify key concepts and understandings to be achieved in the lesson providing an overview of the topic. To ensure academic rigour and intellectual integrity, outcomes are developed taking into consideration the different subject areas.

Eight interviewees (36%) emphasised the importance of lesson planning for MC teaching and hoped what they had learnt would be of great help to them during the practicum. While the importance of lesson planning is discussed in lectures, workshops and tutorials provide opportunities for pre-service teachers to develop the lesson plans. They learn that effective planning is critical to a successful approach and should include a clear statement of the outcomes to be demonstrated in all subjects taught in the schools. Pre-service teachers make use of the different curriculum books while practising lesson-planning activities.

Pre-service teachers learn that lesson plans describe focused learning outcomes and key understandings for specific lessons. They develop lesson plans outlining the specific strategies to be explored and the provisions made for individual learning needs through whole-class, small-group and individual learning activities. Lesson plans also outline focus questions the teachers use to motivate students, guide discussion and direct the learning activities. “On the completion of readings you are to work in groups to develop an integrated plan around a topic of your choice” (Bingham & Waisale, 2005, p. 56) is an example of a workshop activity completed by the pre-service teachers prior to the practicum.

The lesson plan format for a differentiated lesson is slightly different, usually covering a single subject area with a focus on the differentiated activities. Pre-service teachers practise making differentiated lesson plans during workshops and tutorials. They also have to complete an assignment where they have to develop an integrated lesson plan with appropriate assessment tools. In addition, while preparing the differentiated activities, pre-service teachers are also introduced to a set of contemporary strategies that could be

implemented in MC teaching situations. For example, 'de Bono's Thinking Hat' strategy provides a useful framework for supporting children's problem-solving through concrete representations of different cognitive perspectives (Bingham & Waisale, 2005). The pre-service teachers anticipated knowledge about developing integrated and differentiated lesson planning would be helpful to them during the practicum.

#### 5.4.5 *Classroom Management Skills*

The on-campus MC Unit covered various aspects of classroom management skills that would be required to effectively teach in MC situations. Teaching in MC situations requires special management skills because teachers have to deal with children from more than one class simultaneously and children have to work without teacher assistance much of the time. Teachers have to develop a supportive learning environment where there is mutual trust and respect. Delegation of duties and maintaining good class discipline leads to an environment where effective learning can take place. While expressing what they believed would be helpful during the practicum, one of the interviewees stated that:

Knowing how we manage our classroom will be helpful. As a teacher we need to build positive relationship with the students. We need to be friendly and be polite and need to value their contribution within the classroom (PT15/B.3, 2009)

It is critical to carefully and thoughtfully plan the classroom layout to utilise space effectively and to facilitate independent and collaborative learning experiences. Managing the seating arrangement of the children is one of the classroom management skills viewed by the pre-service teachers to be effective during the practicum. Pre-service teachers learnt in the MC Unit about the questions to consider when planning the seating arrangement of children. For example they have to consider:

Does the arrangement of desks in traditional straight rows facilitate group work, collaborative learning or peer tutoring? Would some alternative arrangement of the desks be more appropriate? Perhaps they could be organized into groups or clusters. What about the teacher's desk? Does it necessarily need to be placed at the front of the room? Could it be placed somewhere else in the room? (Bingham & Waisale, 2005, p. 31).

Having an appropriate seating arrangement facilitates the learning process and helps teachers to hold the attention of children. It also helps in maintaining class discipline and in the distribution of teachers' time and energy across the range of classes. One of the interviewees stated that "for me the most important thing is the seating arrangement because enough space should be there for group activities" (PT16/B.3, 2009).

#### 5.4.6 *Concerns regarding the Practicum*

Although pre-service teachers had completed the six weeks of preparation phase, a majority (82%) of the responses showed that interviewees still had a number of reservations (see Figure 5.6). This figure shows the percentage of the responses the interviewees made in regards to the practicum. For example, about three quarters of the responses showed that interviewees were yet not sure as to the requirements of the practicum. One interviewee stated that she was not sure how to complete the observation journal and argued that:

As far as I know I have to observe the associate teachers teaching, the classroom environment, and the facilities and then record them in the observational journal during the first week. However some of my friends are saying it has to be on going (PT01/B.3, 2009).

Actually she was confused about the type of entries required in journals and the comments, which were to be her reflections.

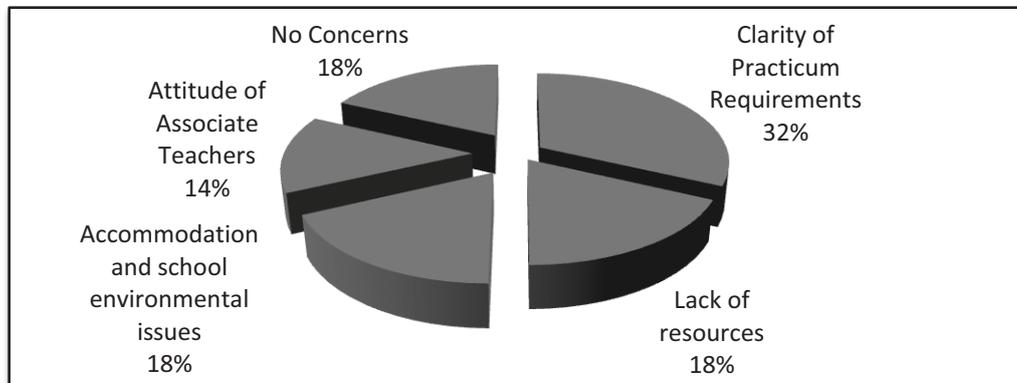


Figure 5.6. Concerns prior to practicum

Those interviewees with concerns considered that some of the competencies were not clearly stated, resulting in uncertainty and confusion. They were not sure what competencies really required them to do. For example, one of the interviewees was confused about the difference between the following two competencies; “use different unit methodologies as appropriate” and “use MC teaching strategies to organise learning programs to benefit individuals and groups”. Some interviewees were concerned about developing lesson plans because they were not sure about the different domains, being cognitive, psychomotor and affective. Each domain has an explicit verb for indicating a different outcome. The following excerpts are indicative of the concerns expressed:

Some of the competencies are not very clear; for example the one about the journals and observations. Will we just observe the first two weeks or for the whole 6 weeks? The assessment is not clear, the E/NDs (effective/needs development) and the total marks do not tally in the end. I hope the lecturers know about this (PT21/B.3, 2009).

I am not sure about the lesson plans, especially the cognitive, psychomotor aspects. I just get confused about them. I am not sure how to write objectives in the three domains (PT04/B.3, 2009).

Journal entries revealed that pre-service teachers were confused about the lesson plan format as some lecturers had developed their own lesson plan at the last minute and the pre-service teachers were not sure which one to use. This seemed to be an issue, because different subject lecturers developed different formats for lesson plans. For example, the format of a physical education lesson plan was different from that for mathematics. Such differences would not have been an area of concern if lesson plan formats had been discussed earlier in the preparation phase.

Four interviewees were not happy about the resources that they were given, and believed that it was not enough considering the duration of the practicum. They believed that the Teachers College should have supplied them with more, such as vanguard sheets (large sheets of paper), newsprints and ruled foolscaps for making lesson plans. Their practicum allowances were also overdue. The norm was to receive semester allowances in the week preceding the practicum. However, during the time of this research, pre-service teachers did not get the allowance due to administrative difficulties. This situation was a significant morale blow to the pre-service teachers. In previous years, pre-service teachers could use their allowances to buy some of their teaching resources such as scissors, staplers and other stationery. The following are a few of the concerns expressed by the interviewees:

I think the allowance should be given to us before we go. I need to buy some stuff as it will be very difficult to come to do the shopping from the schools (PT10/B.3, 2009).

There is not enough resources given for this practicum and we are really not sure about the allowance (PT13/B.3, 2009).

Four interviewees were also concerned about the physical environments of the MC schools that they would be posted to. They believed it would take time for them to settle into the schools with new teachers. They were also concerned about their accommodation especially their safety and security during their stay in the school compound or in the village. The following quotations show their concerns:

I am just concerned about our accommodation. In the past years pre-services had been allocated vacant quarters but now since there are no vacant quarters we will have to stay in the village (PT17/B.3, 2009).

I am concerned about the school environment, the types of teachers, the society and adjusting in the place. I am concerned about the safety of my belongings (PT14/B.3, 2009).

Three interviewees raised their concerns about the attitude of their associate teachers. They hoped that the associate teachers would be helpful and accommodating. Some pre-service teachers were not very satisfied with their associate teachers during the first practicum and hoped that things would be different this time. Associate teachers should play a very significant role in the lives and development of the pre-service teachers because they are viewed as mentors and role models (Breidenstein, 2001; Wakeford, 2001). The following quotations show the concerns of the pre-service teachers regarding associate teachers:

Last year when I went for my practicum I had problems with the associate teacher.

She was not always there to assess me while I was doing my practical. When it came

for her to fill in my assessment sheet, she started writing everything. I didn't agree with some of the points she thought needed development because when I was doing my lessons, she was not present there so that's what I don't like happening again (PT25/B.3, 2009).

I do not know my associate teacher and his or her nature. I do not know whether he/she will allow me to implement what I have learnt at the College (PT09/B.3, 2009).

The concerns of the pre-service teachers were understandable as a lot depended on the approach of associate teachers. The diary entries of one of the pre-service teachers revealed that she was a bit nervous for two reasons. Firstly, she had to stay with her associate teacher and adjust to a completely new family for six weeks. Secondly, the fear of teaching two classes simultaneously seemed to be her major concern. She was concerned lamenting "how am I going to teach two classes at the same time, the preparation and all?" (PT01/B.8, 2009)

Although a majority of the participants had some concerns, there were four interviewees (18%) who believed that they were adequately prepared to meet the challenges of MC teaching during the practicum. They were looking forward to the practicum with much enthusiasm and hoped to complete all the requirements successfully.

#### *5.4.7 Phase 2 Summary*

This section discussed the aspects and related issues perceived to be effective during the MC practicum. Analysis of interviews and survey results revealed that pre-service teachers still had a few concerns about the on-campus MC Unit as well as the practicum; issues that should have been resolved. Adequacy of preparation time, applicability of MC strategies, lesson plan formats, lack of resources and ambiguity of practicum requirements were some of the concerns raised by the pre-service teachers. Going out for a MC practicum

with unresolved issues increases uncertainty and could have an adverse effect on the performance of pre-service teachers. However, the majority of the pre-service teachers were quite optimistic and hoped that whatever knowledge and skills they had acquired would enable them to successfully meet the requirements of the practicum.

### 5.5 Phase 3 The Multi-class Practicum

The third phase, probably the most crucial phase in the overall study, discusses the actual implementation of the previous learning experiences. This phase occurred during the practicum and the research question addressed here was: *What aspects of the MC unit are relevant and applicable during the practicum?* The aim here was to find the practicality of the MC unit in an actual MC context.

#### 5.5.1 Study Population

A large amount of qualitative data was collected during phase 3 with a number of methods being employed concurrently. This phase is where lecturers and associate teachers were interviewed in addition to the cohort of 22 pre-service teachers. Observations also took place and documentary evidence was included in the data for analysis. The data sources employed in phase 3 are summarised in Table 5.7.

Table 5.5  
*Phase 3 Data Sources*

	Interviews	Observations	Documents
Pre-service Teachers	9*	9*	-
Lecturers	8**	-	-
Associate Teachers	10	-	-
Journals	-	-	10
Reports	-	-	10

\* see explanation below      \*\*2 were interviewed later

I have already explained only nine out of the cohort of 22 interviewees were posted to MC schools for their practicum. The rest ended up in schools having straight classes. As such the

views of only 9 interviewees will be discussed in relation to the MC practicum. However, the views of the whole cohort are discussed in relation to their concerns about not getting the opportunity to teach in MC schools.

### *5.5.2 Effectiveness of the Multi-class Unit*

The questions posed to pre-service teachers tried to elicit their views regarding the effectiveness of the MC unit and the MC practicum. Findings revealed that while the MC unit was considered relevant and helped pre-service teachers in completing the requirements of the practicum, it also had some limitations.

The following sections discuss the strengths of the MC unit while some of its limitations as perceived by pre-service teachers will be discussed later.

#### *5.5.2.1 Classroom Management Skills*

Most interviewees (7 out of 9) believed that the classroom management skills they had learnt during the course work were beneficial to them in managing their classes. With the approval of the associate teachers, some pre-service teachers were even able to rearrange the seating arrangement of the children and desks. Developing and even simplifying the existing classroom rules enabled the children to understand their responsibilities and this also helped to improve general classroom discipline.

Observations also revealed that on a number of occasions (7 out of 9) pre-service teachers had prepared and displayed a number of teaching aids and charts on the walls. Observations further revealed that most pre-service teachers were “firm but friendly” in their approach to the children, which significantly contributed to effective classroom management. Lecturers believed that six pre-service teachers (from the interview cohort) especially displayed good classroom management strategies. The following are examples of some of the positive comments made by the visiting lecturers:

She was able to demonstrate good class control and maintain discipline. Children were doing some activities and she was firm but friendly in approach (L01/B.6, 2009).

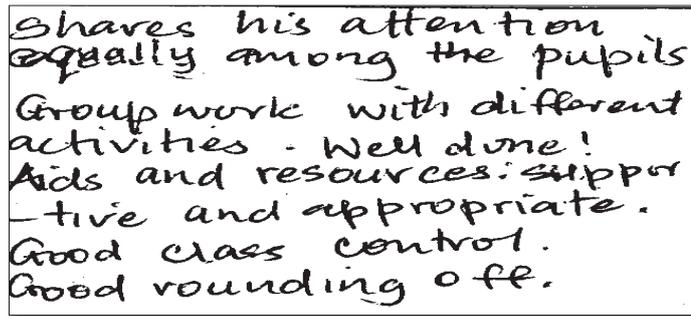
This pre-service teacher had prepared a chart showing the classroom rules displayed on the wall and ensured that all children were working on the task throughout the lesson by moving from one group to another. He had prepared some extra tasks for early finishers and this kept the children busy and minimised the noise level in the classroom (L03/B.6, 2009).

Similar sentiments were also shared by some of the associate teachers. While they believed there was room for improvement, they were satisfied with the classroom management skills displayed by some (6 out of 9) pre-service teachers. The following are a few quotes that support the above observation:

She did it very well. She has displayed very sound leadership qualities. I mean her ability to control both the classes was remarkable and she also manages her time very well (AT02/B.5, 2009).

At the beginning she was finding difficulty in class control but slowly she managed to show her authority and is now able to control the class on her own (AT04/B5, 2009).

Documentary evidence obtained from practicum reports and reflections further suggests that most pre-service teachers had developed their confidence level and were able to manage the classes on their own with less guidance from their associate teachers over a period of time. Figure 5.7 shows the comment made by an associate teacher in a pre-service teacher's practicum report.



Shares his attention  
equally among the pupils  
Group work with different  
activities - Well done!  
Aids and resources: support  
-tive and appropriate.  
Good class control.  
Good rounding off.

Figure 5.7. A pre-service teacher's practicum report

Most pre-service teacher interviewees (6 out of 9) seemed to have learnt and implemented the classroom management skills quite well. Some pre-service teachers had earlier (second phase) expected that classroom management skills would be effective during the practicum. Evidence from interviews, observations and document analysis indicate that they had found the classroom management skills very effective and were able, to a large extent, implement them during the practicum.

#### 5.5.2.2 *Multi-class Strategies*

The findings reveal that five of the interviewees were able to implement MC strategies during the practicum. The common strategies found to be quite effective were integration, differentiation and collaborative learning using group work. In the Fijian context collaborative learning is synonymous with group work. Grouping was effectively implemented and some pre-service teachers even posted to straight classes were able to use this approach. Research has shown that grouping is commonly used by teachers (Barry & King, 1998; Cornish & Garner, 2008). Grouping works effectively when teachers have made good preparations and members in the group know their respective responsibilities. Group work blends well with both integration and differentiation. The following are a few of the comments made by interviewees when expressing their views about aspects of the on-campus Unit found to be effective during the practicum:

I am also able to do grouping very well. Group work is very well done by the children as I have the activities prepared for them in advance (AT09/B.5, 2009).

Group work has been very effective for me. I was just trying to use the strategy known as think, pair and share using group work. I have tried this with both the classes together and it really worked out well (AT24/B.5, 2009).

Five interviewees stated that they were able to implement integration and differentiation effectively in their classrooms. Integration and differentiation are two strategies thoroughly covered in the on-campus MC Unit. One interviewee stated that she “was able to use integration effectively when teaching general subjects to classes 1 & 2” (AT03/B.5, 2009). While sharing his experience, another interviewee stated the school where he was teaching used a single curriculum for both the classes but he was given the opportunity to try out integration and differentiation. He found out that “both were quite relevant” and he was able to use both (AT07/B.5, 2009).

Lecturers also confirmed observing pre-service teachers employing some MC strategies taught in the Unit during their classes. One lecturer noted that she was observing a science lesson in classes 5 and 6 and could see that the pre-service teacher had integrated the topic on plants despite the different curriculum materials for each class. While both the classes were doing the same topic, their tasks were differentiated. Another supporting statement made by one of the lecturers was, “I saw a lesson where a student was taking health science and integrating it very effectively with physical education” (L05/B.6, 2009). The following are some of the comments made by lecturers that verify the use of MC strategies by the pre-service teachers:

Mighty good, I was observing a Science lesson and it was on plants, and she was taking them for both the classes, together as one class and integrating it with Social Science topic, people and environment with differentiated activities. This particular school teaches mathematics and English separately but the general subjects are combined for both the classes (L06/B.9, 2009).

Yes, they are able to integrate the different subject areas. It also depends on the school too as how prepared are they to accommodate the strategies. They are still doing well. I observed a lesson where a student was taking health science and integrating it very effectively with physical education class (L05/B.9, 2009).

Six of the lecturers stated that they were able to witness pre-service teachers implementing integration and differentiation effectively in their classrooms. Four of the associate teachers stated that they had to accommodate changes in order to give opportunities to the pre-service teachers so that they could complete the requirements of the practicum. The following are some of the comments made by associate teachers that verify the use of MC strategies by the pre-service teachers:

I have allowed her to do the grouping the way she wanted. You can see I have given her that side of the wall and all the charts and posters are done by the children. These activities have resulted from her group work and what she calls differentiation (AT04/B.5, 2009).

He uses group work quite effectively. He has re-grouped them according to the way he wanted and the children are responding well (AT05/B5, 2009).

She has tried out both integration and differentiation. She has used group work effectively and has developed differentiated activities for both the classes (AT08/B.5, 2009).

Observations during the practicum revealed that most pre-service teachers were implementing group work whenever possible. Integration and differentiation were implemented while using group work. Documentary evidence derived from journal entries showed that pre-service teachers were able to employ group work quite effectively.

Following are examples of journal entries by two of the participants:

I was able to implement multi-class strategies especially during group work and tried out and saw that differentiated activities were working quite well with the children. I was also able to link my observations to program planning and found that differentiated learning activities were working well with the children (PT02/B.8, 2009).

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Data from all the sources has revealed that the pre-service teachers who were interviewed and observed were able to implement the MC strategies. Similarly the feedback from associate teachers and lecturers also indicated that pre-service teachers were able to implement MC strategies effectively during the practicum. While the literature identifies a broad range of teaching strategies at the College, only three are specifically taught before the practicum;

grouping, integration and differentiation. Accordingly, the pre-service teachers seemed to be quite well familiar with them and implemented them in their lessons.

#### *5.5.2.3 Readiness for Practicum*

Eight pre-service teacher interviewees of the nine in MC contexts considered that the preparation phase had adequately prepared them for the MC practicum. However, a majority (13 out of 22) of the original cohort chosen for interview and tracking at the start of the research project ended up taking their practicum in straight class schools, as a result their views are not considered in regards to the practicum. Nine of the interviewees who were posted to MC schools believed that the knowledge and skills that they had gained through the workshops and the tutorial sessions were helpful to them during the practicum.

Five of the lecturers interviewed considered the MC preparation phase to be good and relevant. Following is an example of a supportive comment by one of the lecturers:

It is a good program, makes the pre-service teachers learn the concept of teaching more than one class. It discusses the similarities and differences between straight and MC teaching. Pre-service teachers learn how to prepare lesson plans and implement strategies like integration and differentiation (L08/B.9, 2009).

Three lecturers considered that the on-campus MC Unit needed to be more adaptive to the school system while two were unsure. The following section will further explore the limitations pointed out by these lecturers.

Associate teachers who were interviewed were divided on their views about the appropriateness of the on-campus MC Unit because they did not know its contents. However, when they compared the pre-service teachers of past years (when there was not any MC program) most of them believed that the current cohort of pre-service teachers were quite

optimistic and knew that MC teaching was more demanding and challenging than teaching children in straight classes. Four of the associate teachers believed that the present pre-service teachers were better prepared to teach in MC schools. One of the associate teachers stated that “at least these people have an awareness of how teachers teach in these small schools” (AT04/B.5, 2009).

Analysis of reports also revealed that associate teachers were quite pleased with the performance of the pre-service teachers. Figure 5.9 shows some of the comments made by the associate teachers with regard to the performance of pre-service teachers during the practicum. It is encouraging to note that apart from good academic performance, these pre-service teachers also contributed towards the physical and social development of the schools.

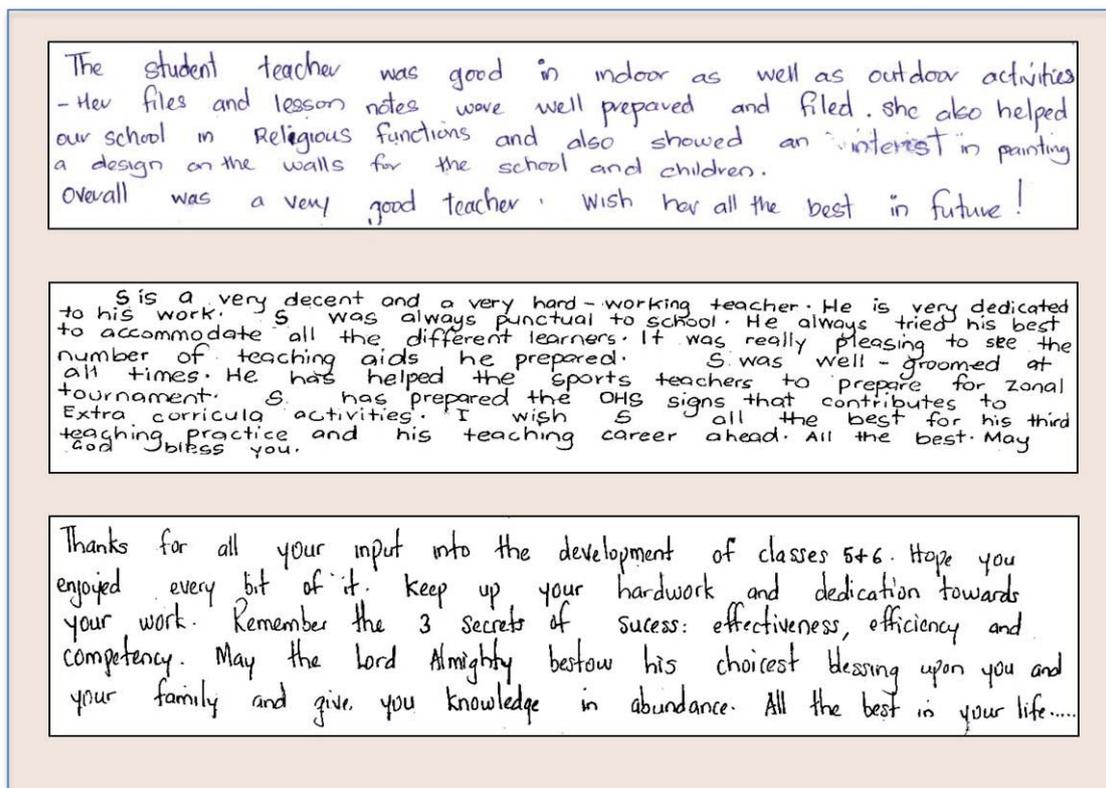


Figure 5.8. Associate teachers' comments in the practicum report

The comments made by associate teachers indicate that pre-service teachers were able to meet the requirements of the MC practicum and contribute effectively towards community

development and extra curricular activities such as organising district sports and athletics competitions.

### *5.5.3 Limitations of the Multi-class Unit*

As foreshadowed earlier, the following sections will discuss limitations of the MC unit and the practicum as perceived by pre-service teachers. Documentary evidence is also provided suggesting that there are certain weaknesses (gaps) in the MC program that need to be addressed.

#### *5.5.3.1 Limited Multi-class Strategies*

Data obtained from pre-service teachers' reflections and interview transcripts revealed that it was quite shocking for most of them to see that there was a big gap between what was covered in the MC Unit and what was actually happening in the field. This raises some interesting questions given the strategies taught during the on-campus MC Unit and what actually happens in the classroom. For example, the strategies covered in the on-campus MC Unit revolved around integration and differentiation. However, many pre-service teachers found that the practical situation was different. The following is a typical pre-service teacher reflection:

I had said before coming that I was about 95% prepared, but when I came here, I faced a lot of difficulties in regard to MC teaching. There is no integration and it seems I am just teaching two separate classes (AT05/B.4, 2009).

A common scenario faced by some pre-service teacher interviewees (5 out of 9) was that the two classes were mostly taught separately. There was not any integration and differentiation because teachers were covering separate sets of curriculum materials for each of the classes; after attending to one class and giving them some work to do, the teacher

would attend to the next class. This method is known as quasi mono-grade. That is, while teaching was happening in one class, the other class would be busy doing written work (e.g., Berry, 2007; Little, 2007). This is a straight class strategy that has been long implemented in MC schools in Fiji mainly due to the rigid nature of the school curriculum.

Another strategy that two of the interviewees found to be implemented was that the teaching of English and Mathematics was done separately but classes would combine for Science Subjects. It took some time for the pre-service teachers to adjust themselves as they thought that at least the science topics could be integrated in line with major themes in the curriculum. Even for science subjects there was often no integration and one curriculum text would be used in both the classes. While the former can be termed as straight-class pedagogy (quasi-mono-grade), the teaching of the science subjects is known as curriculum rotation (Cornish, 2006). Therefore the school was effectively implementing a mixture of two strategies.

Two pre-service teacher interviewees also found situations where both the classes followed a single curriculum. For example, a MC consisting of classes 3 and 4 was found doing class 3 curriculum across the different subject areas in 2009 with class 4 curriculum to be covered the following year. According to literature this is termed curriculum rotation (Cornish, 2006) or multi-year curriculum span (Little, 2007). In Fiji it is commonly known as the “even odd method”. The following reflections by one of the pre-service teachers support the above observation:

The school was using a single curriculum across both the classes and would change the following year. Both classes 3 & 4 were using class 3 text this year (PTD07/B.8, 2009).

While these strategies are being implemented in MC schools, they are not mentioned in the on-campus MC Unit. These issues will be further explored in the discussion of the last phase of the research before the recommendations for change in the on-campus MC Unit. However, it must be appreciated that most of the associate teachers in the MC schools were very accommodating and made changes in their classroom management style so that the pre-service teachers could try out the “new” MC strategies. None the less, the following are some of the comments made by the associate teachers:

Pre-service teachers need to localise their teaching. They should find out what is actually happening in schools because MC teaching is not only integration and differentiation. It is about how the two sets of curriculum can be effectively taught to the children (AT02/B.5, 2009).

Actual MC teaching is a bit different from what is taught at the College. We have to adapt to the school system, because integration and differentiation cannot always be used. We have a system where we have a timetable and a set of syllabus that has to be completed in a given timeframe otherwise the head teacher would take us to task (AT08/B.5, 2009).

The above comments made by associate teachers show that there are gaps between what is covered in the preparation phase and what is actually happening in the field (e.g., Argyris & Schon, 1978). The findings are also supported by literature which confirms that gaps do exist amongst policies and practices in many MC situations (Kucita, 2009; Vithanapathirana, 2010). In order to implement MC strategies appropriately requires adequate classroom management skills.

### 5.5.3.2 *Management issues*

While most pre-service teacher interviewees (6 out of 9) stated that classroom management skills were helpful to them during the practicum, observations and interviews with lecturers and associate teachers revealed that there was a lot of room for improvement. Five pre-service teachers felt that classroom management was an issue for them. As stated by one pre-service teacher, “lecturers did explain to us about how to control the class but practically, it was really tough” (PT07/B.4, 2009). While reflecting back on the on-campus MC Unit, one of the pre-service teachers lamented that:

I wish we were given a chance to do peer teaching in a MC context. An experience in teaching a MC would be better, as we would have come to know about how to switch on and switch off between the two classes. A bit of practice would enable us to know better as what to expect in the real life situation (PT13/B.4, 2009).

The pre-service teachers had done peer-teaching during workshops, but they had done so using a single class context. They believed that practice using a MC situation would have been more beneficial to them.

While commenting on how well the pre-service teachers were taking the lessons, some of the lecturers believed that lessons in classroom management ought to be strengthened. While they acknowledge that classroom management skills are not learnt overnight but come through experience, they believe that some pre-service teachers need to be more firm in their approach. The following are some of the comments made by lecturers that suggest the need for further improvements in classroom management skills:

Most of them say they are prepared but when we observe them we find that they face difficulty in handling these types of classes. Sometimes they teach one class while the other class occasionally disrupts them (L01/B.9, 2009).

They tend to forget they are having two classes in a classroom so one of them gets neglected most of the time. This leads to class disturbance and also they have to rush to complete the lesson (L03/B.9, 2009).

Sometimes trainees face difficulty when they start focussing more on one class and often seem to neglect the other. They do not do it meaningfully but it happens unintentionally (L06/B.9, 2009).

Classroom management is an important aspect of teaching because it leads to creating an effective learning environment. While classroom observations showed that six of the pre-service teachers were able to display good classroom management skills, there was, nevertheless, room for improvement. Some pre-service teachers needed more confidence in handling classroom issues and especially dealing with children. They need to ensure that all children are working on the task throughout the lesson and be more energetic in their approach.

Most associate teachers were quite considerate when commenting on the question of pre-service teachers' classroom management skills because they understood the complexities of MC teaching. The following are some of the views of associate teachers regarding classroom management issues:

Not good at the beginning but he slowly adjusted himself and now displays good management skills. He sees that tasks are completed on time and children move in and out of the room in an orderly fashion (AT05/B.8, 2009).

She needs improvement in class control. At times children tend to take advantage of her. I have told her to be stricter with the children but after all it comes with experience (AT06/B.8, 2009).

He needs to improve on class management skills because one class cannot be left idle. Children need to be doing something because this also leads to discipline problems. Children start walking around unnecessarily and make a lot of noise (AT10/B.8, 2009).

Despite covering classroom management strategies in module 2 of the MC Unit and the Course Book, it seems that some of the pre-service teachers faced difficulty in implementing them in actual MC situations. Proper management of time by the teacher and pupil is therefore essential to maximize the efficiency of the limited time that is available in such situations. Classroom management is an important issue in MC teaching because of the increased demands of more than a single class. The following journal entry sums up the views of some of the interviewees, “practical work is far different from all the theory we learn at the College, I just don’t know how these teachers are able to manage two classes and maintain discipline in these situations” (PT01/B.8, 2009). As such, lecturers and associate teachers need to be well versed with the dynamics of MC teaching and supervision.

#### *5.5.3.3 Lack of Expertise in Practicum Supervision*

Most of the pre-service teacher interviewees who were posted to MC schools (8 out of 9) believed that both lecturers and associate teachers should be briefed about the practicum assessment procedures so that everyone spoke the “same language”. These interviewees raised this concern because they observed that some lecturers and associate teachers did not appear to understand the essence of some of the competencies. Moreover, visiting lecturers needed to be well versed in assessment procedures because, at times, they did not consult

with associate teachers as is required by the MC practicum. The following is a typical comment made by one of the pre-service teachers:

Lecturers coming to assess need to assess in consultation with the associate teachers as it is required of them. Lecturers need to know the competencies and the indicators themselves. College should conduct workshops for lecturers and associate teachers so that they are all aware of the expectations of the MC practicum (PT19/B.4, 2009).

The common understanding amongst lecturers, associate teachers and pre-service teachers is that all the requirements of the practicum have to be accomplished. As a result it becomes vital that special workshops should be organised so that new associate teachers as well as new lecturers joining the College are briefed about assessment procedures.

#### *5.5.3.4 Safety of Pre-service Teachers during Practicum*

All the pre-service teachers are accommodated at the school or in nearby settlements during the MC practicum. They stay in vacant quarters, classrooms, villages or with teachers who stay in school compounds. Pre-service teachers have to adjust themselves accordingly so that they are able to survive in the environment for six weeks. However, some pre-service teachers at times feel vulnerable because they find themselves in an unfamiliar environment without access to a water supply, electricity, telephones or mobiles, and they feel cut off from “civilisation”. The unfavourable experiences of some of the pre-service teachers demand the College be more vigilant and proactive regarding safety and security during the practicum. The following is a comment from a pre-service teacher who had to be relocated due to safety reasons:

In future the practicum coordinator should at least go and see the places where the pre-services would be staying. He should see the environment and the community before sending the pre-services, especially when sending girls (PT01/B.4, 2009).

This type of comment warrants prompt action from the Teachers College so that pre-service teachers are able to complete their practicum requirements without having to compromise their safety and security. One female pre-service teacher posted to a remote school that had no water supply stayed alone in a classroom and had her bath in a nearby river. With much despair she stated that “for me day time is ok but at night there are a lot of boys roaming around and when I am staying alone, I feel unsafe” (PT10/B.4, 2009).

Following are examples of typical concerns raised by pre-service teachers:

I think the coordinator should at least make sure that whichever place they are sending us, it should be safe. He should go and check where we would be staying. At first we were told that we would be given vacant quarters, but when we arrived, we found that it was actually a vacant classroom. At least he should go and see where girls would be staying (PT16/B.4, 2009).

The coordinator should confirm to the school when we would be coming. The head teacher and the management were not even sure if we were coming or not. We had to clean a vacant quarters that was very dirty. The practicum coordinator should also check the quarters because when we came here, we found the louvres were missing and when it rained the water used to come inside (PT21/B.4, 2009).

Just posting us to a MC school is not enough as the practicum coordinator should check the facilities. For example, for me I have to cross the river everyday to reach

the school. Sometimes when it rains the river gets flooded, I have to wait until the water goes down before I can cross (PT22/B.4, 2009).

The above experience of pre-service teachers raises some important questions about how the practicum is planned and carried out. It shows that there are gaps between the preparation phase and the practicum. The practicum needs to be more supportive of the preparation phase by offering a friendlier and safer environment for the pre-service teachers. The MOE and the school committees could help in addressing the above issues to a large extent.

#### *5.5.3.5 Posting of Pre-service Teachers during Practicum*

Data from all the sources identified the need for all pre-service teachers to have experience of MC teaching during a MC practicum. Only 9 of the interviewees had been posted to MC schools while the rest were posted to straight class schools. While 13 of the interviewees were able to apply some MC strategies in straight class schools, they were not able to get the real feel of MC teaching and classroom management challenges. This finding is similar to that reported in the literature highlighting that pre-service teachers do not get experience in MC teaching during their training days (Wilken, 1996).

One pre-service teacher who did not get an opportunity to experience MC teaching during the practicum expressed his feelings by requesting that the practicum coordinator check out the schools in advance so that pre-service teachers “are not deprived of this golden opportunity of having experience in teaching a MC” (PT11/B.4, 2009). The following are examples of similar concerns raised by some of the pre-service teachers that highlight the severity of the matter:

I would have liked to teach a MC as the training that we went through actually prepared us for MC teaching. In my opinion all pre-services should be given the opportunity to teach a MC for this practicum (PT17/B.4, 2009).

I think I should have been posted to a MC school so that I could really try out the MC strategies in reality. That would have been a real practice (PT20/B.4, 2009).

On a similar note, one pre-service teacher noted in her reflections that she was quite happy when she was told that she would be teaching classes 1 and 2. However when she arrived at the school, she found that it was a straight class school and she was allocated to class 6. She puts this in her own words as, “I had done all my preparations for classes 1 & 2, Big Book, children’s activities and the charts and then had to start all over again” (PT25/B.4, 2009).

Lecturers and even associate teachers were concerned about the pre-service teachers who were unable to get the opportunity to teach in MC schools. One of the associate teachers argued that “the Unit is actually for MC schools so it would be better if they are posted to MC schools” (AT01/B.5, 2009) while another suggested that “after doing a MC Unit, these pre-services should be sent to a MC school where they can better use their expertise” (AT09/B.5, 2009). The following quotes from lecturer interviews further highlight concerns regarding the non-posting of pre-service teachers to MC schools:

The pre-service teachers need to be posted to MC schools so that they can reap the best benefit from the MC program (L04/B.6, 2009).

Students should not be penalised for not implementing so called MC strategies if they are placed in straight classes where it may be difficult because of having only one class. Firstly, put them in MC and then we can actually see whether they can or can’t implement the strategies (L05/B.6, 2009).

This year, I have seen many of our students ending up in straight class schools. They should all be posted to MC schools so that true effectiveness of the MC program can be established (L07/B.6, 2009).

Data from the third phase of the research for this thesis shows that the indiscriminate posting of the pre-service teachers during their practicum is quite significant. This issue will be further discussed in the following phase of the research.

#### *5.5.3.6 General Concerns*

Findings from the various qualitative data sources show that while the MC Unit had provided pre-service teachers with some MC teaching strategies and skills, there were still aspects that needed to be addressed. While seven pre-service teacher interviewees were happy with the on-campus MC Unit, two believed that the Unit could have done more to prepare them for the MC practicum. They believed that more practical work should have been covered during workshops and tutorials. They considered visiting MC schools, watching videos of teachers teaching in MC situations and “micro-teaching sessions would have been more beneficial” (PT04/B.4, 2009).

They also believed that they should be given more time to prepare their resources, especially during the workshop sessions. One of the pre-service teachers even suggested that “the assignments should be structured to prepare resources that could be later used as resources for the MC practicum” (PT07/B.4, 2009). Some of the interviewees expressed their concerns about the logistics of completing official documents such as the attendance registers and making workbook entries. According to one of the interviewees, pre-service teachers “were not told how to mark the attendance registers and enter the numbers which should be tallied at the end of the week” (PT13/B.4, 2009).

Three of the lecturers interviewed believed there should be more uniformity when assessing pre-service teachers during the practicum. The practicum required lecturers to assess pre-service teachers in consultation with associate teachers. Discrepancies arose when lecturers, used to making assessments on their own, made contradictory comments and suggestions to those of the associate teachers. Moreover, a few lecturers expressed their concerns about the number of indicators for a competency. According to one lecturer:

There are too many indicators. One competency has four to five indicators so some lecturers see a few and say ok while some lecturers want to see all the indicators. At times even the students are confused and this issue needs to be addressed so there is conformity in assessment (L05/B.6, 2009).

Six lecturers interviewed expressed concerns regarding assessment of pre-service teachers during the practicum. Their concerns seemed quite genuine and, if addressed, would lead to a more uniform assessment of pre-service teachers.

Apart from the common concern of not posting the pre-service teachers to MC schools, seven of the associate teachers interviewed were concerned about lack of communication about the MC program being offered at the Teachers College. One associate teacher raised this issue by stating that:

There needs to be conformity, I mean we don't know what they teach in MC program. We should not work in isolation. Tell us what you are teaching and we will tell them how we are teaching. We can learn from each other. I have just seen the course book and it's a lot of readings only (AT02/B.5, 2009).

They further believed that due to a lack of communication between the school and the Teachers College, pre-service teachers required more practical guidance. According to one associate teacher:

Sometimes things do not happen as stated in the workbook because of some internal or external activities. At times we have guest speakers such as people from Road Safety come and speak to the children. As teachers we need to have contingency plans as how the missing lessons will be covered (AT03/B.5, 2009).

These associate teachers believed that pre-service teachers should be more informed about the practicality of the school system, especially the methods presently employed in MC schools. They also expected pre-service teachers to know what school activities take place during the weeks they visit the school. There may be extraneous activities, such as football training or preparation of items. These activities should be entered appropriately in the remarks column of the workbooks. At times pre-service teachers expressed anxiety if they did not cover the required number of lessons in a day due to these activities (AT07/B.5, 2009). These issues need to be acknowledged by the College and closer links should be created with the schools to provide a better practicum for the pre-service teachers.

#### *5.5.4 Phase 3 Summary*

All pre-service teachers were appointed to schools after completing six weeks of lectures, tutorials and workshops. For some pre-service teachers, it was the first experience in a MC context and also in village life. Unfortunately, 13 of the 22 pre-service teachers selected for interviewing at the outset of this research had not been posted to MC schools. As such, data could not be obtained from them about the practicum except that their feelings about not being posted to MC schools. Findings from interviews show, that while the

preparation program attempted to equip the pre-service teachers with MC strategies, classroom management skills and planning for teaching, the effectiveness of these lessons could not be established because all pre-service teachers were not posted to MC schools.

Results from analysis of interviews show that the preparation program at the Teacher's College did not cover a sufficiently broad range of MC strategies prior to the practicum. There needs improvement in planning and reorganising of some of the modules in the MC Unit so that all strategies are completed before the practicum (Bingham & Waisale, 2005). A better understanding of the range of recommendations for improvements in the MC Unit will be established after discussing the results of the survey at the final phase of the research.

#### 5.6 Phase 4 The Overall Multi-class Program

The fourth phase of the research occurred after pre-service teachers had completed the MC program. The research question that was addressed here was: *How effective do pre-service teachers perceive their overall MC program was in preparing them for MC teaching?* The aim of this phase of the research was to obtain pre-service teacher perceptions about the effectiveness of the whole MC program and to discover if the program had adequately addressed their concerns. A questionnaire survey was administered and interviews were held concurrently.

##### 5.6.1 Study Population

The survey was administered to all 150 pre-service teachers as it was not possible to establish the number of them posted to MC schools during the practicum. Out of this total, 142 responded giving a participation rate of about 90%. Table 5.8 shows the breakdown of pre-service teachers who participated in the survey.

Table 5.6  
*Post-program Survey Population*

Ethnicity/Gender	Males	Females	Total	Percentage
I-Taukei	34	33	67	47
Indo-Fijians	36	34	70	49
Others	0	5	5	4
Total	70	72	142*	100
Percentage	49	51	100	

\* Inclusive of 22 pre-service teachers who did not get a MC posting

It is important and must be mentioned at the commencement of this phase that 120 pre-service teachers (85%) out of the cohort of 142 were posted to MC schools for their practicum. The rest of them ended up in schools having straight classes. As such the views of only 120 pre-service teachers will be discussed in relation to the MC practicum. However, the views of the remaining 22 pre-service teachers are discussed in relation to their concerns regarding not getting the opportunity to teach in MC schools.

The same cohort of 22 interviewees who had participated in previous phases of this research was interviewed but only the data from 9 interviewees who had been posted to MC schools were taken into consideration. However, the data from the remaining interviewees contributed towards understanding their feelings about not getting the opportunity to experience MC teaching during the practicum. Two lecturers were also interviewed and a few of the documents (2 journals and 2 Reports) were also sighted with findings integrated into phase three of the research.

### 5.6.2 *Post Conception of Multi-class Teaching*

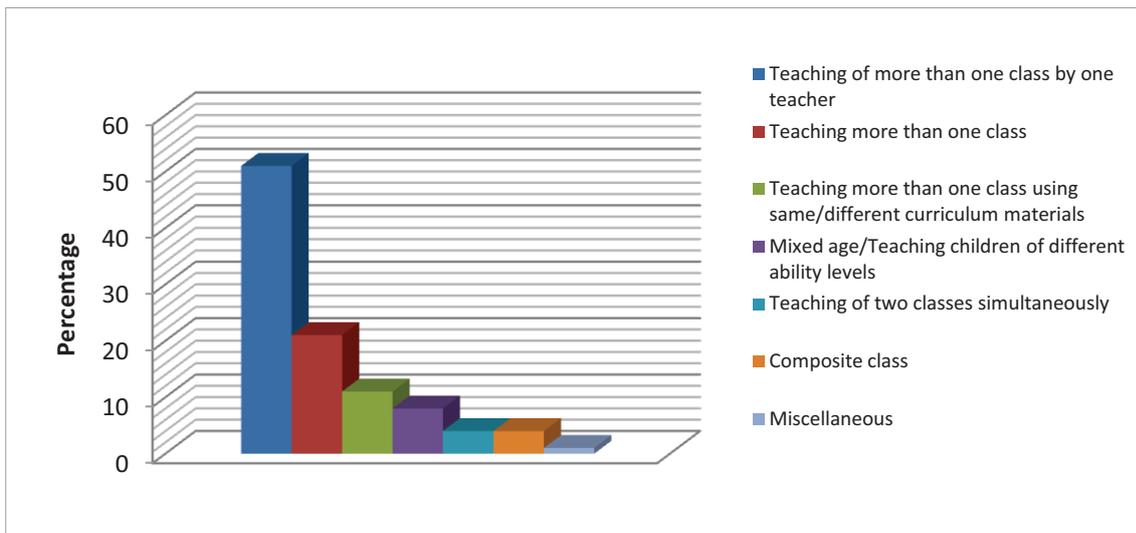
The perception of pre-service teachers after undergoing the entire MC preparation program was still distinct and different, and this raises some important questions about the MC program. For example, how effectively was it able to spell out the distinctiveness of MC

teaching? The pre-service teachers' individual narratives establish that the MC program does not have a clear definition of MC teaching. Therefore, by the end of the program, some of the pre-service teachers still had limited understanding of MC teaching. For example, a majority (72%) of the respondents to the survey still consider MC teaching as just teaching more than one class (see figure 5.9). However previous research (Ali, 2004; Lingam, 2004) has shown that MC teaching is much more than just teaching two classes. To name a few unique characteristics of MC teaching; it involves teaching different curriculum materials simultaneously, use of good time management skills, and implementation of special classroom management strategies. Teachers in MC situations implement different teaching strategies, learn to improvise teaching aids and manage teaching using limited resources.

It was encouraging to note that at least about a quarter (23%) of the pre-service teachers tried to further elaborate and include variables such as use of different curriculum materials, simultaneous teaching and addressing different ability levels. The equivocal nature of the findings shows that 15% of pre-service teachers were still confused about the nature of MC teaching. Some respondents were quite frank and simply stated that:

During my practicum I was teaching a single class so basically my definition for MC would be the same. It is teaching two different classes in one classroom (PT01/B.10, 2009).

Since I did not get the opportunity to teach in a MC school I do not know the practical aspect but I can say it's where there are two or three classes in a classroom with one teacher controlling them (PT06/B.10, 2009).



*Figure 5.9.* Post response to item number 1C: What is meant by the term multi-class teaching?

Results from the survey data show that about 15% of pre-service teachers did not get the opportunity to teach in MC schools during the practicum. This was one of the concerns raised by pre-service teachers and will be discussed later in the chapter. However based on the quantitative evidence, it can be assumed that the MC preparation program made a positive contribution to pre-service teachers' understanding of MC teaching (see Appendix C.10). Nearly all (91%) of the pre-service teachers strongly agreed or agreed that they had ample knowledge about MC teaching.

Although the definition of MC teaching remains questionable for pre-service teachers, survey data show that more pre-service teachers considered they had ample knowledge about MC teaching after the MC program than before. Figure 5.10 shows the change in perception of pre-service teachers regarding knowledge about MC teaching before and after the MC program. Before the program only a few (2%) strongly agreed they had ample knowledge about MC teaching while a quarter (25%) of them strongly agreed after the MC program. Similarly there was noticeable increase (46% to 66%) in the proportion of those agreeing that they had ample knowledge about teaching in MC situations while there was a remarkable

decrease (36% to 2%) in the proportion of those who disagreed they had ample knowledge about MC teaching. On the basis of these findings, I consider that pre-service teachers believe they increased their knowledge about MC teaching.

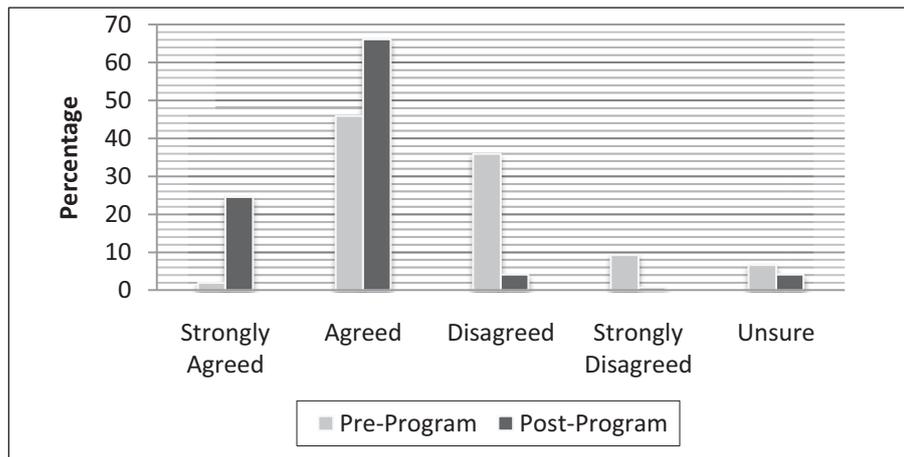


Figure 5.10. Pre and post response to item number 1: I have ample knowledge about multi-class teaching

The following sections discuss the perceptions of the pre-service teachers in relation to course work as well as the practicum. I address these issues in order to establish the effectiveness of the MC program. Initially the pre-service teachers had some concerns about MC teaching and expected them to be addressed by the on-campus MC Unit. In order to explore these issues further, the findings are discussed under respective headings to establish a logical argument about the effectiveness of the overall MC program.

### 5.6.3 On-campus Multi-class Unit Structure

Pre-service teachers surveyed were concerned about the content of the on-campus MC Unit, DPE230; it was all new to them and they had hoped it would provide them with good information about learning and teaching in MC situations. These were the initial expectations of pre-service teachers. Results from phase 4 data show that many of the concerns of pre-service teachers had been addressed during lectures, tutorials and workshops. However,

almost all the pre-service teachers interviewed (8 out of 9) made suggestions for improvement. The following quotes illustrate the realisation of expectations as well as some suggestions:

The lead lectures, tutorials and workshops were very beneficial in preparing us for the practicum. A good program but a little bit changes can be done such as adding micro-teaching using real students (PT05/B.10, 2009).

To some extent it was good but I feel it was not enough. We could have a little bit more practical aspect like micro teaching using primary school children. A bit of practice would enable us to know better as what to expect in the real life situation (PT13/B.9, 2009).

The views of the pre-service teachers show that while they were quite satisfied with the content of the MC Unit, they considered improvements could be made to make it more relevant to MC teaching situations. They suggested that more practical work with real students could be done during the workshops and the tutorials. This would also enable them to better understand classroom management procedures in MC contexts.

#### *5.6.4 Classroom Management*

Classroom management was one of the issues pre-service teachers had hoped would be addressed by the MC preparation program. This aspect was covered in the MC Unit and most pre-service teachers found it to be effective during the practicum. Classroom management techniques such as class control, delegation of duties, seating arrangements and managing student behaviour were found to be helpful in MC teaching situations.

Implementing effective classroom management strategies helps reduce disruptive behaviour and at the same time promotes classroom discipline. Analysis further suggests that

most pre-service teachers felt they were effectively skilled in maintaining classroom discipline because the majority (95%) of the pre-service teachers surveyed strongly agreed and agreed that they could maintain classroom discipline (see Appendix C.8). On the issue of the effectiveness of the MC program, one of the respondents stated, “it prepared me and gave me a thorough idea as how to manage a MC” (PT31/B.9, 2009). Another reported that “the program showed me that prior planning and preparation of teaching aids is very important in controlling two classes at the same time” (PT121/B.9, 2009), stressing the importance of prior planning to successful management of a MC.

Class control in a MC setting often appears difficult in the beginning, however, as routines become established, and teaching aids are prepared, children engage more purposefully in their learning and the issue of management becomes less threatening. Numerous studies (Collingwood, 1991; Little, 2007; Ninnes, 2006; Yembuu, 2006) have identified the importance of having adequate classroom management skills, especially in MC situations. This situation arises because teachers have to deal with more than a class at one time.

Initially 33% of pre-service teachers had stated a concern regarding classroom management in MC situations. Results from phase 4 data show that in general their concerns had been adequately addressed by the MC Unit because it provided them with sufficient knowledge and skills to effectively manage two or more classes simultaneously. It also provided them with clear directions in managing MCs and at the same time provided them with techniques for responding to inappropriate student behaviour. One of the interviewees stated that:

I gained a lot of confidence and I was able to control my class up till the end of the week. I was being firm in my approach and easily tackled the questions from students (PT10/B10, 2009).

Hence, it can be established that the classroom management aspect was addressed well by the MC preparation phase and was relevant and applicable during the practicum.

### 5.6.5 Multi-class Strategies

Results from the survey of pre-service teachers' show that most pre-service teachers felt they had gained sufficient knowledge about integration and differentiation during the MC Unit (see Figure 5.11). Initially half (50%) strongly agreed or agreed that they had ample knowledge about integration and differentiation, but after the program the proportion who strongly agreed or agreed increased to 95% and there was a massive decrease in the views of those who disagreed (31% to 2%). Even the proportion of the pre-service teachers who were unsure also decreased significantly (13% to 3%). This shows that pre-service teachers felt they had gained sufficient knowledge about integration and differentiation.

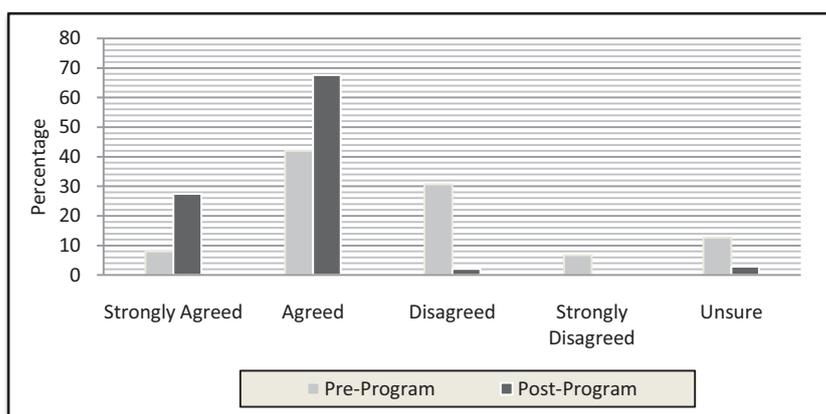
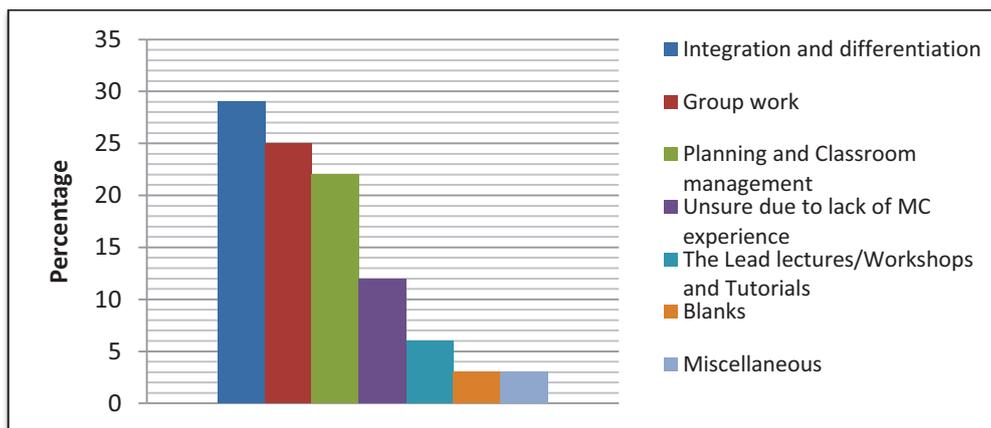


Figure 5.11. Pre and post response to item number 9: I have ample knowledge about integration and differentiation

Most of the pre-service teachers surveyed had hoped that the MC Unit would provide them with teaching strategies specially designed for catering to the needs of the children in

MC situations. Nearly a quarter (23%) of pre-service teachers in the initial survey had stated that they wanted to learn MC strategies so that they would be able to teach and manage a MC during the practicum. The findings from the phase 4 survey show that the expectations of pre-service teachers were well addressed by the preparation program. The findings were quite interesting; while slightly more than half (54%) of pre-service teachers surveyed stated that the MC strategies learnt during the preparation phase had been effective and applicable; the others (46%) were not satisfied with suggested strategies. Quantified survey data (see Figure 5.12) show that almost a third (29%) of pre-service teachers were able to implement integration and differentiation quite effectively while collaborative learning using group work seemed appropriate for the remaining quarter (25%).



*Figure 5.12.* Response to item number C4: What aspects of the multi-class unit were most relevant to multi-class practicum?

Journal entries show that some pre-service teachers were surprised when they found all class 6 children doing a class 5 curriculum. The school had a strategy of implementing one curriculum over a long period of time and it was working out very well for them. This was similar to the findings at phase 3 regarding MC strategies. One of the pre-service teachers who faced such a situation noted:

At the beginning I thought that there was only one class but later I came to know that there were two classes. The associate teacher explained to me how this system works. Since 2009 was an odd year, all classes followed odd class curriculum and would change to even the following year (PT05/B.10, 2009).

This revelation shows that there is a gap between what is covered at the Teachers College and what is implemented in MC schools. The experiences of pre-service teachers show that the scope of MC pedagogies covered during the preparation program was limited and needs to incorporate quasi mono-grade, where English and Mathematics are taught separately, and general subjects are integrated or the curriculum is rotated. In expressing his frustration about the preparation program, one pre-service teacher stated:

I noticed that student teachers were the only ones using integration and differentiation. It was not used by the actual teachers in the field. Teachers used other strategies such as single class strategy, as they treat each class separate because they have a standard curriculum to cover for each class and combine only in General subjects (PT09/B.10, 2009).

Discussions further revealed that there were gaps between expectation and reality; one pre-service teacher argued that “what is happening in the classroom is different from what we learn at the College” (PT105/B.9, 2009). Some pre-service teachers considered that while integration and differentiation look very good on paper, much is left to be desired for its implementation due to the rigid nature of the national curriculum.

The experiences of pre-service teachers raise a number of important issues such as the lack of communication between schools and the Teachers College. It also shows that there are gaps between the expectations of the Teachers College and Curriculum Development Unit

(CDU) of the MOE. The CDU is the curriculum development and implementation arm of the MOE in the Fijian context. The Teachers College seems to be working in isolation and is unable to communicate MC strategies to two of its important stakeholders, the MC schools and the CDU. The following comments made by associate teachers justify the need for better collaboration between different stakeholders:

We need to have conformity; I mean we don't know what they teach in MC program. We should not work in isolation. Tell us what you are teaching and we will tell them how we are teaching. We can learn from each other (AT05/B.5, 2009).

The College should allow the associate teachers to do this program so that we are all aware of the new aspects and could be in a better position to understand the pre-services and offer the guidance needed (AT03/B.5, 2009).

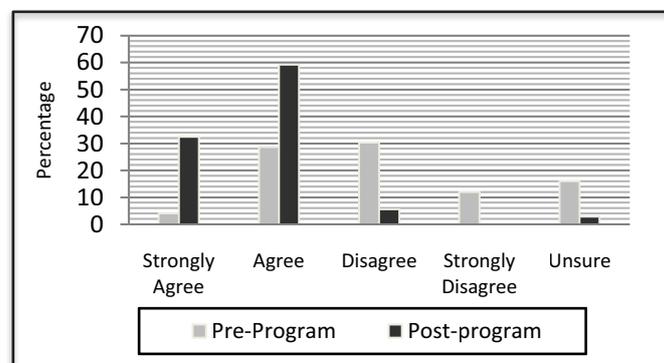
The following comment was made by an associate teacher who had undergone the MC preparation program and had been teaching in MC situations for the past three years:

The strategies we learn at the College cannot be implemented straight away as other teachers are not ready to accept wholesale change. You know change is difficult but slowly they can be assimilated but the most important thing is the covering of the syllabus. Whether you use the new strategies is not important to the reporting officers as long as the syllabus is covered (AT08/B.5, 2009).

The shared experiences of the pre-service teachers and the insightful comments made by the associate teachers raise a number of significant questions about the MC strategies covered during the preparation phase of the Teachers College MC program and its applicability in MC contexts in Fiji.

### 5.6.6 Multi-class Practicum Experience

Initially, most pre-service teachers were nervous and concerned about the MC practicum. However, their perceptions began to change as they progressed through the MC program. Towards the end of the MC Unit, the important role played by the practicum started to surface. One pre-service teacher interviewed noted, “it was the practicum where I learnt what actually teaching was all about” (PT09/B10, 2009). It was the practicum that enabled most pre-service teachers the opportunity to implement the MC strategies learnt during the program. Initially only one third (33%) of the pre-service teachers strongly agreed or agreed about their readiness for the practicum (see Figure 5.13). However, almost all (91%) of them strongly agreed or agreed after the program. The analysis of results from the surveys establishes that pre-service teachers’ perceptions of the effectiveness of the MC program, as the proportion of those disagreeing or unsure, also decreased considerably.



*Figure 5.13.* Pre and post response to item number 5: I am well prepared for the multi-class practicum.

The MC practicum was the focal point for pre-service teachers even before they began this program. While there was eagerness about the practicum, there was also anxiety and uncertainty as to what the practicum would be like. For some, it was a lifetime experience living in the remotest parts of the island without having access to roads, electricity and water

supply. Being cut off from the world where there was no reception for mobile phones and access to the nearest shop or health centre was a challenge in itself.

Some pre-service teachers had certain concerns about the practicum but slowly most issues started falling into place and they were able to fulfil the requirements of the program successfully. The following are some comments made by pre-service teachers that show their satisfaction with the practicum:

MC practicum was very important because it is there that we really learnt what MC teaching was all about. We learnt class control and time management strategies by observing our associate teachers. Theory is something else but it is the practice that really prepares us for a life of teaching (PT22/B.9, 2009).

The practicum prepared me well enough to take any MC in my teaching career (PT22/B.9, 2009).

Practicum aspect was a great learning experience and would be of great help if we end up taking a MC after graduating (PT33/B.9, 2009).

The practicum was the most important part of my training as it enabled me to experience what MC teaching is all about (PT123/B.9, 2009).

Six out of ten journal entries also revealed that pre-service teachers were satisfied with the practicum but also made suggestions for improvement. For example, while appreciating the experience provided by the practicum, one pre-service teacher suggested in her reflection that the Teachers College should consider inviting practising MC teachers as guest speakers during the preparation phase. The MC practicum experience was perceived to go a long way towards addressing issues to be faced in the MC situation because it seemed to be beneficial

to pre-service teachers and this is summarised in the words of a pre-service teacher as “a very rewarding experience, as this program gave us the knowledge and the skills to cater for the needs of the children in MC schools” (PT17/B.9, 2009).

Nine out of ten reports (of the cohort who had been posted to MC schools) suggested that the pre-service teachers had successfully completed all the requirements of the practicum (Figure 5.14). Reports and comments provided by associate teachers revealed that pre-service teachers were able to accomplish the requirements effectively.

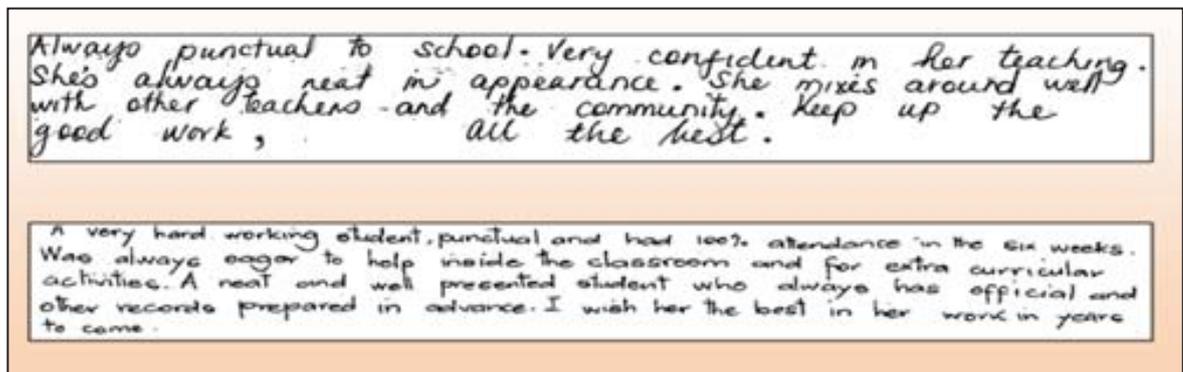


Figure 5.14. Associate teachers comments

However the practicum also received criticisms from some of the pre-service teachers who considered they were not able to get the best from the program. The main issue raised by the pre-service teachers was about lack of posting to schools having MC teaching situations.

#### 5.6.7 Practicum Postings

As discussed earlier, pre-service teachers who were not posted to MC schools believed they had been deprived of an opportunity to really experience MC teaching. Results from the third phase of the research already speak volumes on these issues and are in line with the results of phase 4 of the study. It is also in line with the literature findings that practicums often do not fully support the course work covered during lectures, tutorials and workshops (Wilken, 1996). While some pre-service teachers were able to implement some MC strategies

in straight class schools, they were not able to experience actual classroom management strategies in a MC situation. The findings of the final phase of the research build on the findings of the third phase and make clear some of the shortcomings of the practicum because even the lecturers and associate teachers commented on similar issues.

Results from phase 3 and 4 show that there is an urgency to review the protocol for the posting of pre-service teachers during the practicum; the MC program is such that it needs to be supported by a MC practicum – as argued by about 20% of pre-service teachers surveyed. One of the pre-service teachers argued that “a MC practicum will reinforce the MC program so all students should be given a chance to teach a MC” (PT17/B9, 2009). According to the survey, for the majority (70%) of pre-service teachers, MC teaching is not an issue of concern but for the remaining (30%) it is still an issue because most in this group were unable to experience MC teaching during the practicum (see Appendix C.11). It is clearly evident from the findings that there is a gap between the MC preparation program and the practicum. This gap can be bridged if the Teachers College takes a more proactive role in posting pre-service teachers to schools that have MC teaching situations. In similar research on MC teaching in England, head teachers recommended that pre-service teachers needed “exposure to mixed age teaching during pre-service training and teaching practice” (Berry & Little, 2007, p. 84).

#### *5.6.8 New Experiences*

While most pre-service teachers surveyed were eager to implement the MC strategies learnt at the Teachers College, they found that schools had their own styles of organising MC teaching. While the ‘even odd method’ has been in existence for decades, pre-service teachers were not aware of this strategy. The Teachers College needs to broaden its scope of strategies used in MC situations. The Teachers College also needs to be in touch with what is

happening in schools and not work in isolation. This is because schools are the context in which pre-service teachers find themselves upon graduating from the Teachers College.

Pre-service teachers need to be abreast of the curriculum materials used in different classes. Integration and differentiation do not work in a vacuum but with a group of children doing similar or different curriculum. While associate teachers were helpful and allowed pre-service teachers to reorganise the classroom settings to implement MC strategies, pre-service teachers need to understand that schools are bound by education policies that dictate the curriculum and the timetable that has to be adhered to (Berry & Little, 2007). There are block timetables with specific curriculum materials that have to be covered in specific time frames within the day. Children's learning is also affected because "achievement is consistently related to the amount of time that is available for teaching" (Suzuki, 2007, p. 89).

Pre-service teachers need to be aware of these issues and appreciate them because schools must apply the rules. In any case, upon graduating, pre-service teachers would be required to implement the rules of the school to which they are posted. Theoretical knowledge gained at the Teachers College may not be directly relevant in MC situations but surely it can be modified and adapted into the system. This requires a better coordination between the CDU, the Teachers College and the schools; CDU prepares the curriculum while the Teachers College prepares teachers who in turn implement the curriculum in schools. The experiences that have been shown to be new to the pre-service teachers in this research could be incorporated in the MC program so that the gap between theory and practice is reduced, and the practicum is more meaningful and enjoyable to pre-service teachers.

#### *5.6.9 Availability of Resources*

Lack of resources is a typical feature of most rural and remote schools in Fiji (Tavola, 2000). As a result, when pre-service teachers embark on their practicum they are required to

take their own resources in the form of teaching aids, vanguard sheets, scissors and similar items that can be used in the classrooms. Pre-service teachers are provided with a semester allowance to purchase the items essentials for the practicum. However, results from the current research show that due to bureaucratic impediments, pre-service teachers did not receive their practicum allowances before the MC practicum. This caused much dissatisfaction amongst pre-service teachers as one of them complained: “I have not received my allowance to buy my resources, so I hope the education department will give us some” (PT24/B3, 2009). However, such expectations remained unfulfilled, as one of the pre-service teachers lamented:

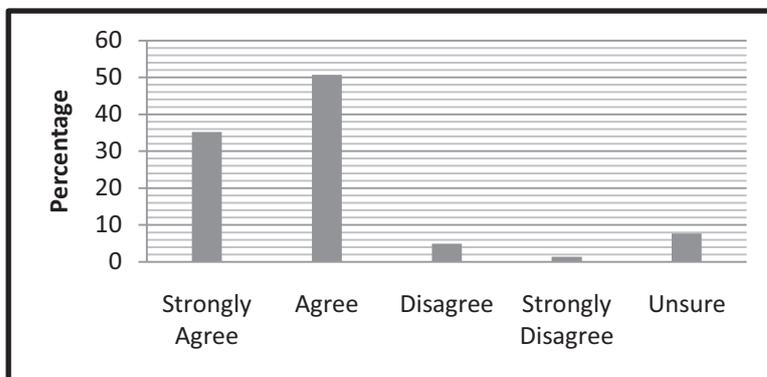
Could the College supply more resources to the students? Because when we went to the school, we were not given anything at all. We needed newsprints, vanguard sheets because we just could not rely on chalk and board method. We were really disadvantaged but survived somehow (PT24/B.10, 2009).

The findings also show that some schools were not even equipped with mandatory resources such as syllabuses for different classes, curriculum books and science apparatus. Lack of resources is a typical feature of many MC teaching situations around the world (Ames, 2007). Pre-service teachers tried their best to adjust to the system and teach with the resources available, and at times improvised resources so that lessons could take place. Having some degree of resources and working within a limited time span, pre-service teachers tried their best to complete all the requirements of the MC practicum.

#### *5.6.10 Multi-class Program Overview*

Analysis of data has indicated that, while the MC program has gaps regarding pedagogies and practices, it also provides a strong foundation for MC teaching. The MC

program provides an avenue to address MC issues and prepare pre-service teachers for future MC teaching. Although true effectiveness of the program is contentious, the analysis shows that the majority (86%) of pre-service teachers strongly agreed or agreed that the program was effective for them (see figure 5.15) while only a few (6%) disagreed or strongly disagreed. Those disagreeing and unsure comprise only 14%, which is quite marginal when compared to the 86% who believed that the program had effectively prepared them for MC teaching.



*Figure 5.15.* Response to item number 16: I believe the multi-class preparation program was very effective for me

The MC program created an awareness of challenges and opportunities for pre-service teachers in the field of MC teaching. Although MC teaching was an innovation of the Diploma Program, it was well accepted by the pre-service teachers (see Appendix C.12). Those who strongly agreed and agreed that MC teaching did not make them worried increased from 47% to 70%. The proportion of pre-service teachers who disagreed also decreased but, unexpectedly, those who were unsure increased from 8% to 15%. There may be a number of reasons for this, for example finding new experiences in the school system or not getting the opportunity to teach in a MC school during the practicum.

### *5.6.11 Suggestions for Improvement*

The pre-service teachers perceived the MC program to be quite effective. However, many of them (83%) suggested that changes could be done to make the program more relevant and applicable to MC teaching situations (see Table 5.7). Quite a few (19%) pre-service teachers considered that improvements could be made to the program prior to the practicum. They believed that, instead of just having group presentations and discussion during workshops and tutorials, micro-teaching with real students would be more helpful to them since there was a model primary school on the campus.

They also suggested that sessions could be held where videos of previous pre-service teachers could be viewed and analysed. These practical sessions would give them a virtual experience prior to the practicum. Suggestions were also made that they could have field trips to some of the nearby MC schools and observe a few of the lessons. This would give them a good opportunity to experience issues such as MC pedagogies and classroom management skills demonstrated by the practising teachers.

While 17% of survey respondents did not make any suggestions, and seemed to have been satisfied with the program, 15% suggested changes to the content and delivery of the program. They considered that the program needed to be more aligned to MC schools and include more MC pedagogies and curriculum studies (see Table 5.7). Curriculum organisation in MC situations is a challenge and teachers in MC situations all over the world have expressed their concern (Berry & Little, 2007). A few pre-service teachers believed that they needed to be provided with ample resources by way of prescriptions (syllabus) and curriculum materials. The following are some comments made by pre-service teachers about this issue:

More strategies should be taught to student teachers in order to make them fully prepared for MC teaching (PT049/B.9, 2009).

I think there should be a specific lesson plan for MC practicum for all subjects. The lesson plan must have two class plans side by side. Integration and differentiation lesson plan is not always appropriate (PT052/B.9, 2009).

Expectations of schools should be addressed during workshops and tutorials (PT106/B.9, 2009).

Too much time is spent on theory that can be used to show us MC classes in school (PT113/B.9, 2009).

Make the whole program more practical to what is actually happening in the school system (PT132/B.9, 2009).

There were a number of miscellaneous comments made by pre-service teachers regarding the content and delivery of the MC program. Analysis of the survey data showed that 12% of the pre-service teachers strongly believed that all of them should be given the opportunity to experience MC teaching during the practicum while 10% suggested that lecturers and associate teachers should be well versed with assessment strategies during the practicum and six percent of the pre-service teachers considered that they needed more time for the practicum. As discussed earlier, pre-service teachers wanted the MC program to be more practical and related to the actual practices in MC schools.

Table 5.7  
*Suggestions made by Pre-service Teachers*

Remarks	Number of Pre-service Teachers	Percentage
Micro-teaching, video sessions and MC school visits should be made before the practicum	27	19
Had no comments to make	24	17
Miscellaneous	22	15
All to get a chance to teach in a MC school during this rural practicum	17	12
Lecturers and associate Teachers should be briefed about the assessment procedures.	14	10
Increase the duration of the practicum	08	06
Strategies implemented and practiced in schools be included in the program	06	04
Primary Curriculum should be well covered during the program and resources should be made available to the pre-services	05	04
Total Responses	142	100

#### 5.6.12 Final Perceptions

Upon completion of the MC program, pre-service teachers were asked to share their views about their overall perception of the MC program (see Figure 5.16). Some (38%) pre-service teachers considered the program to be very effective while others (37%) believed it to be good enough to prepare them for MC teaching but had room for improvement. Twelve percent considered it to be a satisfactory program while 7 percent did not respond and 6 percent were still unsure. On the basis of the analysis and the results presented here, I suggest it is to some extent a worthwhile program as it has managed to create an awareness of the dynamics of MC teaching in the pre-service teachers. The program has created a new era in addressing the needs of hundreds of children in small rural and remote areas in Fiji whose only means of education is through MC schools. This is in line with literature which argues that “for millions of children worldwide the only type of schooling in which they will gain access, if they gain access at all, will be multi-graded” (Little, 2007, p. 302).

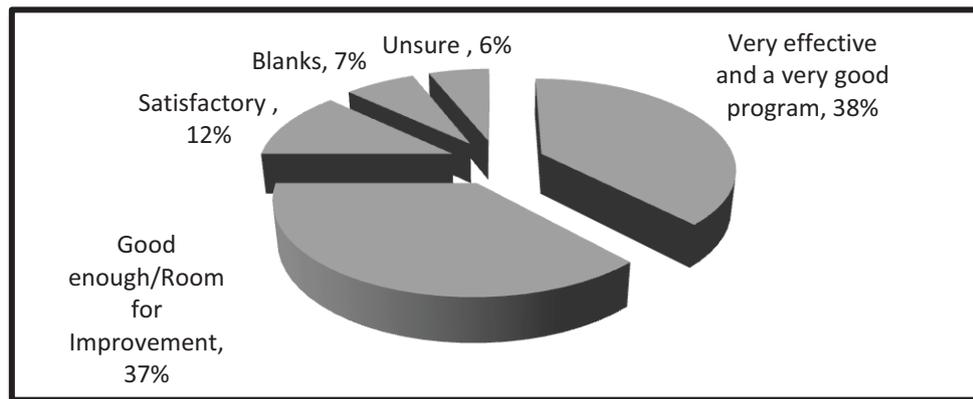


Figure 5.16. Final perceptions of the multi-class program

#### 5.6.13 Phase 4 Summary

This section of the study has not only discussed the findings of phase 4 of the research but also discussed the importance of phase 4 findings in relation to other phases of the study, especially the first phase. Comparing the views of pre-service teachers prior to the MC program and then at the completion of the program, shows how the thoughts of pre-service teachers have been influenced and changed, and the positive impact the MC program has had on their knowledge and skills regarding effective MC teaching. The phase 4 findings have also identified gaps in the MC program which, if addressed, would make the program more relevant and practical.

#### 5.7 Phase 5 Practicality of the Multi-class Program

The fifth and the final phase was unanticipated and as such is not present in the original research design. As stated earlier in Chapter 4, the Government of the Republic of the Fiji Islands reduced the retirement age from 60 to 55 years on 10<sup>th</sup> April 2009. According to the State Service Decree 2009 “any person employed in the civil service, Fiji Police Force and the Fiji Prisons Service, who is already over the age of 55 years, shall retire on 30 April 2009” (Government of the Republic of the Fiji, 2009b, p. 6). This action resulted in the mass

retirement of primary school teachers, who were mostly civil servants. There was chaos in the school system as there was a huge shortage of teachers and in this case, the primary teachers.

In order to fill the vacancies, the pre-service teachers were absorbed into full time teaching positions as soon as they had completed the MC program. These pre-service teachers had not yet graduated as they had still a semester's work to complete. Taking advantage of the situation, interviews were conducted with eight of these pre-service teachers who had completed six to eight weeks of full time MC teaching in the western division in Fiji. None of these teachers were part of my interview cohort but were part of the whole cohort of the pre-service teachers. Seven of the teachers had experienced MC practicum while the views of eighth teacher revealed his views regarding not getting the opportunity to experience MC teaching during the practicum. Conducting interviews with these teachers resulted in this fifth phase.

As in phase 4, the research question that was addressed here was: *How effective do pre-service teachers perceive their overall MC program was in preparing them for MC teaching?* The aim of this phase of the research was to obtain pre-service teacher perceptions about the effectiveness of the whole MC program in actual MC situations.

#### *5.7.1 Relevance to Multi-class Situation*

Most of the interviewees (6 out of 8) believed that the MC program had prepared them effectively for MC teaching. They believed that what they had learnt during the lectures, workshops and tutorials was very much relevant and applicable to the MC schools. In particular the MC teaching strategies and classroom management skills were very much applicable in their classrooms. One of the interviewees stated that "I am able to implement integration and differentiation very well in my class" (PT03/B.11, 2009). While responding

to the question as to the aspects of the MC program working well for them in the classroom, one of teachers stated that he found “the lesson preparation aspect where motivation is used to get the attention of the children very effective” (PT01/B11, 2009). However, the MC practicum was mentioned as the best learning experience by most of the interviewees (5 out of 8). The following are some of the comments made by the interviewees:

It is a good program as even when I went out to do my MC practicum I was able to handle two classes quite well. Now I am finding it useful as I already know what I would be expecting when I was posted here (PT01/B.11, 2009).

It is a good program, especially the practicum component. I went to a rural practicum and took a MC, which really prepared me for teaching in a MC school (PT08/B.11, 2009).

The findings revealed that a sense of maturity was settling in as some of the interviewees mentioned that they had to take into consideration the physical and the social environment of the MC schools. Most of them had experienced a lack of teaching resources during their practicum and could comprehend that effective teaching and learning depended on “a number of variables, such as the ability of children, location of schools, resources and the community” (PT07/B.11, 2009). On the whole the interviewees perceived that it was an effective MC program that had prepared them adequately for MC teaching.

### *5.7.2 Incompatibility to Multi-class Situation*

While commenting on the aspects of the MC program that was not working very well in MC situations, a few of the interviewees (3 out of 8) stated they were still finding difficulty in implementing the MC strategies. One of the interviewees said nothing seemed to be working well. She seemed to be quite frustrated and lamented that:

Hardly anything is working for me here mainly because class 1 children do not have any kindergarten or pre-school experience. Even the strategies that I learnt at the College are not working here. I modify, change and try other means such as peer learning using class 2 children (PT04/B.11, 2009).

The interviewees were now facing the real challenges of MC teaching and were trying to come to terms with the reality of the situation. Some teachers also seemed to be confused because they had been taught one system but now had to follow the school system with its different teaching styles. The following are some of the aspects of the MC program that were not working well:

The system is totally different for me. They have told me to teach the same curriculum to both the classes and it is not possible to implement integration (PT02/B.11, 2009).

At the College we learnt that chalk and the board method was the old method of teaching. When I came here I still found out that not all but most of the teachers using chalk and board method (PT08/B.11, 2009).

One of the interviewees stated that even the preparation of the Workbook and the system of marking the attendance register was different from what had been learnt at the College. He stated that the “preparation of workbook, here it is done differently as a result I follow the method it is done here” (PT03/B.11, 2009). It was interesting to note that the interviewees were slowly blending into the school culture and adapting themselves well to the demands of their respective schools.

### 5.7.3 *Innovative Practices Found in Multi-class Schools*

Similar to the findings in phase 4, some of the interviewees found that their schools had their own system of classroom management and administration. They found out new strategies and practices implemented in their schools. For example one of the interviewees stated:

We do mathematics separately but all other subjects we do it together; one year they use class 3 curriculum materials and the following year they do class 4. They call it even, odd. This method or strategy is new for me, sort of straight class, but I am trying to adjust (PT02/B.11, 2009).

The interviewees (5 out of 8) mentioned that the way the MC concept was visualised in the schools was different from what they had learnt at the College. The schools seemed to be more concerned to organise MC as straight classes. The following are some of the comments that suggest the interviewees were encountering new experiences in their MC schools:

Yes I discovered something new, for example I am teaching only class three curriculum this year and next year I will be teaching class four curriculum. This is sort of straight class teaching (PT03/B.11, 2009).

Teachers here use one curriculum for both classes and change again the following year. I was not aware of this method before. We did not do this at the College but the circumstance is such that I do not have other option but to follow the system (PT05/B.11, 2009).

Here one year they are doing one class work and the following year they do the next classes work. This year they are doing class seven work and the next year they do class eight work. This thing was new (PT07/B.11, 2009).

Literature has identified these as “even odd” strategies (Cornish, 2006; Little, 2007). For two of the interviewees this situation was not new as they had experienced it during their MC practicum. The practice seemed new to the other interviewees but they were slowly coping and adjusting themselves well in their respective MC schools.

#### *5.7.4 Suggestions for Improvement to MC Program*

The interviewees were asked to suggest some changes that would make the MC program more relevant to the school system. Although most of the interviewees were satisfied with components of the MC program, they perceived that there was room for improvement. Particularly they believed that they needed a supportive practicum which allowed all pre-service teachers to experience MC teaching. Some of the suggestions made by the interviewees were:

The theory part is good enough but the issue is the practicum. All of us should be put in MC schools so that we can all have some experience in MC teaching. I went to a straight class during the practicum and ended up teaching a MC. I wish I could have gone for a MC practicum (PT02/B.11, 2009).

The teaching of one curriculum to both classes and changing the following year should be included in the program apart from integration and differentiation. Other methods of preparing workbooks should be introduced and preparation of blue print should be included. We were only given the notes on preparing test blue prints but were not informed how to actually prepare them (PT03/B.11, 2009).

They should take the students to visit MC schools during their time at the College. More field work is needed so that at least all students can observe MC teaching. The

College should not depend on MC practicum as all students do not get the chance to teach in MC schools (PT04/B.11, 2009).

Some of the interviewees suggested that the new pedagogies and practices that they had observed in their schools should be included in the MC unit. One of the interviewees stated that “methods of teaching can be broadened, such as using of one curriculum for both classes and then changing around next year” (PT07/B.11, 2009). It must be noted that these teachers had not completed the Diploma program, and had been assigned tasks that had to be completed before they could graduate. This event was also having its toll on them by making MC teaching more challenging for them. According to one of them:

We have been given this opportunity to teach but the problem is that we are loaded with assignments. Completing the assignments and doing full time teaching and meeting all the Ministry of Education’s requirements is very difficult. We have to submit these assignments when we have our residential classes during the two weeks holiday (PT05/B.11, 2009).

The issues raised by these interviewees who were employed as full time teachers justifies earlier findings and if addressed appropriately would lead to a better MC program.

#### *5.7.5 Phase 5 Summary*

This was a small phase but significant data were collected regarding the practicality of the MC program to full time teaching in MC situations. Although, these teachers had been in the field for only six to eight weeks, they seemed to have adjusted themselves well in the system. They raised their concerns about the importance of MC practicum and the need to make the on-campus component of the program more practical. They suggested that some of the pedagogies and practices implemented in the schools should be included in the MC unit.

While most of the interviewees seemed to be pleased with the MC program, they believed there was room for improvement that could be addressed in future.

### *5.8 Program Synthesis - Addressing the Overarching Research Question*

This section presents a synthesis of the different phases of the research in addressing the overarching research question: *How do pre-service teachers perceive this particular, MC program, in preparing them for teaching in MC situations?*

Although numerous studies in MC teaching have highlighted an educational paradox (Little, 2007), little analytical attention had been paid to understanding the perception of teachers who would be charged with the important task of teaching children in MC situations. This research has produced important information regarding the perceptions of pre-service teachers undertaking a MC program.

The findings at the first phase of the research have shown that pre-service teachers have concerns as well as expectations from a new program, in this case, the MC program. This information is important to scholars as well as policy makers when making revisions to the MC Unit as well as the overall program structure. It provides important feedback to the course coordinators who can address the issues during the program. This study not only provided baseline data but also provided substantial evidence that learning can be more meaningful and enjoyable if a program meets the needs of the students, in this case, pre-service teachers.

After completing six weeks of MC preparation, pre-service teachers seemed to have settled down well and were looking forward to the MC practicum. While the Unit appeared to have addressed most of the concerns of the pre-service teachers, its true effectiveness would be revealed during the practicum. Pre-service teachers highlighted a number of aspects such as MC pedagogies, lesson planning and confidence building that they expected would help

them during the practicum. The data obtained from the survey and interviews provided useful information about the perceptions of pre-service teachers and at the same time showed that, in spite of covering six weeks of course work, they still had some concerns that needed to be addressed. Results from data analysis clearly showed that 32% of pre-service teachers were not sure about the requirements of the practicum which raises some interesting questions about the effectiveness of the preparation program.

By phase 3 of the research most pre-service teachers had taken up teaching positions in MC schools, although some pre-service teachers were posted to straight class schools. This arrangement was regarded as an anomaly as it did not fully support a MC program. Phase 3 was a multifaceted phase because data were collected from various sources using observations, interviews and documents. Analysis of the data indicated that, while certain aspects of the program were relevant and easily applied in the classroom context, pre-service teachers confronted some new practices that were not covered in the MC program. On the basis of the analysis it can be argued that there are gaps between the expectations of the Teachers College and management of MC teaching in the schools.

Phase 4 provided an opportunity for pre-service teachers to reflect on the MC program in relation to its effectiveness in preparing them for MC teaching. On the basis of the findings I consider the MC program a good advance towards educating pre-service teachers for MC teaching. It is an effective stepping stone towards preparing teachers who are better educated in MC pedagogies and practices to serve in MC situations; the perceptions of pre-service teachers have been positively influenced by the MC program to a large extent.

Phase 5, though not anticipated earlier provided an opportunity for pre-service teachers who had been employed as full time teachers to reflect on the MC program in relation to its applicability in MC teaching. The findings revealed the teachers' perceptions of the importance of a supportive practicum. The importance of pedagogies and practices

implemented in MC schools was also highlighted. The findings also support the data collected at the earlier phases particularly in regards to the content of the MC unit. Moreover, there are important implications for the on-campus MC unit as well as the practicum that will be discussed in the following chapter.

### 5.9 *Conclusion*

This chapter has provided the analysis of results from the four initial phases and an unanticipated fifth phase of the research for this thesis. It has presented the perceptions of the pre-service teachers and provided quotations wherever applicable. The four underpinning questions helped to address the overarching research question. The chapter concluded with a synthesis of the different phases of the research, affirming prospective implications for the MC program. The following chapter presents the conclusions as well as potential implications.

## Chapter 6: Conclusions and Recommendations

### 6.1 Introduction

The preceding chapters have discussed the analyses of perceptions of pre-service teachers undertaking a MC program in Fiji. Although results discussed in Chapter 5 indicated the MC program had its strengths, it also showed clear gaps in the program – especially between theory and practice. This chapter begins by focusing on how the individual research questions have contributed towards addressing the overarching research question discussed in Chapter 5. It makes some broad conclusions about the issues discussed thus far as well as presenting some implications and recommendations from this study, together with the limitations evident in the research. Proposals for future research are also presented.

### 6.2 Research Questions

All along the way this research has been guided by the following over arching research question:

*How do pre-service teachers perceive this particular, MC program, in preparing them for teaching in MC situations?*

In addition, four further underlying questions were posed as an underpinning to the key research question. These questions were:

- 1) What concerns do pre-service teachers have about MC teaching prior to undertaking their MC program?
- 2) What aspects of their MC Unit do pre-service teachers perceive will be effective during their practicum?
- 3) What aspects of the MC Unit are applicable during their practicum?
- 4) How effective do pre-service teachers perceive their overall MC program was in preparing them for MC teaching?

The key research question, together with the four underlying questions, helped guide the study and discuss the views and perceptions of the pre-service teachers in regards to the MC program.

### *6.3 The Overarching Research Question*

Findings from the four underpinning questions contributed towards addressing the overarching research question. Therefore, it was important that the data collected at each phase were thoroughly analysed and triangulated to elicit significant information. Each of the four questions was addressed during the different phases of the research (see Chapter 5).

#### *6.3.1 Phase 1*

The first research question was addressed during the first phase of the research. A survey was conducted and interviews were held simultaneously. The findings revealed that most pre-service teachers were concerned about the content of the MC Unit and its ability to adequately prepare them for the practicum. Almost all pre-service teachers were looking forward to the MC program and hoped that their concerns would be addressed. The responses to questions in this first phase of the study helped to build the framework for the overarching research question by clarifying the initial perceptions of the pre-service teachers about the MC program.

#### *6.3.2 Phase 2*

Interview data were used to address the second question during Phase two of the research. This phase took place after pre-service teachers had completed six weeks of the MC Unit at the Teachers College and were on the verge of leaving for the MC practicum. Results show that while some pre-service teachers still had some unresolved matters, the majority were optimistic that what they had learnt in the MC Unit would help them to successfully

complete the MC practicum requirements. Therefore, the responses to this research question not only provided the views of pre-service teachers regarding the theoretical aspects of the MC program but also their perceptions about the forthcoming practicum. Thus the findings added further information to the framework of the overarching research question.

### 6.3.3 *Phase 3*

The third research question was addressed using data from interviews, observations and documents, all conducted or collected during the pre-service teachers' MC practicum. The findings further informed the overarching research question as to the perceptions of the pre-service teachers about the preparation program. Results showed students' perceptions of 'what was working' and 'what was not working' from the lessons they had learnt in the on-campus MC Unit when faced with an actual classroom situation. Results also revealed gaps in the theoretical and the practical aspects of the MC program. Results further established that not all pre-service teachers had the opportunity of teaching in MC contexts and consequently could not get the real feel of MC teaching. The various experiences and perceptions of pre-service teachers during the practicum assisted in addressing the overarching research question.

### 6.3.4 *Phase 4*

Data collected from surveys, interviews and documents addressed the final research question. A few of the reports arrived late and were analysed during phase four but data were integrated into previous phase results. The findings presented a holistic view of the overall MC program from the participants' perspective. These findings were not analysed in isolation but in light of the data collected during previous phases. Data triangulation revealed the perceptions of pre-service teachers over the life of the MC program. Thus, the findings from the four underpinning questions contributed to addressing the overarching research question.

### 6.3.5 *Phase 5*

This was a small phase where the data collected addressed the final research question. Phase five was after the pre-service teachers had completed six to eight weeks of full time classroom teaching in MC schools. The findings presented a realistic view of the overall MC program from the participants' perspective. These findings were not analysed in isolation but in light of the data collected during previous phases and revealed the perceptions of pre-service teachers about the applicability of the MC program. Thus, the findings from this phase contributed to addressing the overarching research question.

As such, the findings from all four research questions are discussed reciprocally in the following section.

## 6.4 *Major Findings*

While the present study was neither evaluative nor comparative it does present a picture of how the perceptions of a cohort of pre-service teachers changed while undertaking a program of study in MC teacher education. In particular, the study interpreted the perceptions of pre-service teachers as they progressed thorough the different phases of the MC program. In order to arrive at logical conclusions and be able to make appropriate recommendations, the major findings are discussed under appropriate themes and issues.

### 6.4.1 *Emerging Themes*

These themes have emerged across the study.

#### 6.4.1.1 *Concept of MC Teaching*

Evidence from participants' narratives and interpretations of data show that initially pre-service teachers had very limited understanding of MC teaching. This is not surprising. However, after the program they were able to identify a number of key ideas associated with MC teaching. For example, instead of just stating that MC was a situation where a teacher is

in charge of more than one class, they included descriptions such as, “using different curriculum materials”, “teaching simultaneously”, “sharing of time between classes” and “remote locations of MC schools”. Use of these terms indicates a greater sophistication in their understanding.

Analysis of data also revealed that the program does not clearly define MC teaching and it is just through experience that pre-service teachers understand the concept. Since there are many definitions of MC teaching, the MC program should have a clear definition such as a setting where a single teacher has the sole responsibility for more than one class simultaneously. Despite having completed the MC Unit, some pre-service teachers could not contextualise the definition of MC.

#### *6.4.1.2 The Multi-class Unit*

Most of the readings in the MC Unit were photocopied from international books that mostly dealt with straight class strategies. There was limited information on MC strategies, and the examples and settings were from overseas countries, many of which were not applicable in the Fiji context. There is no local text on MC teaching except my Masters Thesis (Ali, 2004) and the Handbook on MC teaching (Collingwood, 1991) that covers South Pacific countries. It is this gap that hopefully will be filled by this present study. Some of the modules also need to be rearranged so that pre-service teachers can be better equipped with knowledge and skills prior to the practicum. The content portrays a lack of local perspective on MC teaching because it also uses the term multi-grade, which can become confusing. This is because in Fiji “grade” usually refers to ability levels; thus “multi-grade” implies different ability levels. It may be more appropriate to use the term “MC” in the Unit as it is commonly known in the Fiji context.

#### *6.4.1.3 Multi-class Teaching and Classroom Management*

The major concern of pre-service teachers prior to the MC program was whether it would prepare them adequately to meet the requirements of the MC practicum. The pre-service teachers were apprehensive about managing and teaching more than one class simultaneously. As discussed earlier, numerous studies (Collingwood, 1991; Little, 2007; Ninnes, 2006; Yembuu, 2006) have identified the importance of having adequate classroom management skills, especially in MC situations.

Evidence from the study suggests that as the pre-service teachers progressed through the program they gained confidence in classroom management and teaching skills. Data collected throughout the practicum showed that their concerns had largely been addressed by the MC program because the program provided the pre-service teachers with clear directions for managing such classes and techniques for dealing with disciplinary issues in the classroom. These are the major strengths of the MC program which could be further developed by:

- i) including more practical aspects such as micro teaching,
- ii) videos of previous pre-service teachers teaching in MC situations,
- iii) videos of model lessons by practising teachers, and
- iv) field trips to MC schools prior to the MC practicum.

Learning appropriate time management skills is particularly important for MC teachers because of the need to allocate sufficient time to different classes in the same classroom. For example, a straight class would normally have an hour of mathematics daily in primary school, but in MC situations having two classes, the teacher has to divide this time to spend about half an hour with each class. Fiji teachers in MC situations need to be particularly time conscious because the country's curriculum is timetabled so that syllabuses are completed on

time. However, teaching classes separately is not the only option as there are other MC strategies that can be successfully implemented in such situations.

#### *6.4.1.4 Multi-class Pedagogies and Practices*

Since its introduction in the formal education system in Fiji, MC schools have followed a course of adopting and adapting straight class pedagogies in MC teaching situations. This study has reflected discrepancies between the pedagogies learnt at the Teachers College and classroom practice, particularly in the mismatch between theory and practice. Findings suggest that the pedagogies covered in the MC program were limited and did not match with the actual day-to-day teaching in MC situations. The pedagogies covered in the MC Course Book revolve around integration and differentiation. These concepts were new to many associate teachers, even though they allowed the pre-service teachers to try out the strategies during the practicum.

The schools have their own pedagogies that, according to the pre-service teachers were “new experiences”. In Fiji this is commonly known as ‘even odd’ where the curriculum is rotated every year. According to research (e.g., Cornish, 2006; Little, 2007) this strategy is known as curriculum rotation or multi-year curriculum spans. There was also the presence of semi-rotational styles where English and Mathematics are taught separately but General subjects were integrated. The experiences of pre-service teachers revealed that the scope of MC pedagogies covered during the preparation program was very limited and needed to incorporate more pedagogies actually being practised in the MC schools.

#### *6.4.1.5 Lack of Resources*

Lack of resources is a typical feature of most rural and remote schools, which are mostly MC schools in Fiji. Data collected in the research for this thesis revealed that some MC schools did not even have mandatory resources such as the syllabus for different classes,

curriculum materials and science apparatus, all distinctive features of many MC teaching situations around the world (Ames, 2007). These schools are managed by local committees composed of parents and residents of the settlement and mostly depend on Government grants for meeting the cost of day-to-day running of the schools. These schools need to be well equipped with good teaching and learning resources in order to deliver quality education to children who are already financially and socially disadvantaged. There are financial implications for the schools and the MOE but literature is explicit about the importance of resources and facilities to quality education (Aikman & El Haj, 2007; Lewin, 2007; Little, 2007; Vu & Pridmore, 2007).

#### *6.4.1.6 Support Structure*

On the basis of findings from this research it can be concluded that the MC practicum needs the full and decisive support of the Teachers College, lecturers, associate teachers as well as schools, as suggested in the literature (Little, 2007). Schools provide the context, while lecturers and associate teachers provide guidance and supervision for the pre-service teachers. Associate teachers act as mentors and role models for the pre-service teachers for six weeks. Therefore, they should be briefed about the content of the MC Course Book, especially the assessment procedures, and MC curriculum structures and pedagogies. They should also be briefed about the different competencies students are expected to achieve to pass the MC program.

The findings also show that some of the lecturers were themselves not aware of the assessment procedures. The College should have professional development sessions for lecturers where the practicum coordinator can brief them about the practicum and assessment procedures. This would enable lecturers to provide the necessary information to support pre-service teachers. Lecturers also need to follow the schedule of visits to pre-service teachers

during their practicums so that supervisions are more meaningful and productive. The Teachers College also needs to play a more pivotal role in engaging with MC schools because research on MC contexts indicates that practicum programs are more effective when there is good cooperation and understanding between the teacher training institution and the schools (Barry & King, 1998).

None of the staff members at the Teachers College had any formal training in MC pedagogies and a few of the lecturers expressed their lack of knowledge and understanding of the MC concept. This became evident during the practicum when they themselves did not know all the competencies and their indicators in relation to MC teaching. The pre-service teachers had a lot of expectations of lecturers whom they expected would equip them with the latest innovations and practices in MC teaching throughout the MC Unit. They believed that lecturers should have the content and background knowledge about the logistics of MC teaching.

However, findings from this research revealed that lecturers who were taking the MC program did not have expertise in MC teaching. In particular, lecturers from secondary backgrounds did not have any knowledge about the dynamics of MC teaching. The literature stresses the importance of teacher educators having ample information about MC teaching and learning strategies so that beginning teachers can get the best knowledge and relevant MC skills (Vithanapathirana, 2010).

#### 6.4.2 *Emerging Issues*

Emergent issues are matters of concern that may relate to just one or two phases of this research.

#### *6.4.2.1 Duration of Unit Coverage before Practicum*

The findings revealed that some pre-service teachers were concerned about the duration of the Unit coverage before the practicum. They believed that six weeks would not be enough to fully equip them with knowledge and skills to be able to meet the requirements of the MC practicum. While many had their concerns addressed as the MC program progressed, a few pre-service teachers continued to have unresolved issues. Most of these issues revolved around the requirements of the practicum. These pre-service teachers considered that they needed more time to do their preparations and prepare their resources. They also considered that they were not given sufficient time to learn about lesson planning and the curriculum materials used in the primary schools.

However, a majority of pre-service teachers believed that six weeks of theoretical work had adequately prepared them for teaching in MC situations, especially during the practicum. They hoped that whatever they had learnt in the Unit during the six weeks would help them in meeting the requirements of the practicum.

#### *6.4.2.2 Lack of Multi-class Experience*

The findings revealed that, while for many the practicum was a rewarding experience, some pre-service teachers believed it was a lost opportunity. This is because there were some pre-service teachers who were not posted to MC schools during the practicum. According to the survey, 15% of the pre-service teachers did not get the opportunity to teach in MC situations during the practicum. As a result they could not experience MC teaching although they tried to implement MC strategies to some extent. Literature on MC teaching highlights that MC programs are often not fully supported by the practicum programs (Pridmore, 2006; Wilken, 1996). On the basis of the findings I consider that there are gaps between the MC preparation program and the practicum that can be bridged if the College takes a more

proactive role by increasing its practicum budget to find suitable MC schools for all pre-service teachers.

#### *6.4.2.3 Gaps in Expectations*

There were gaps between the expectations of pre-service teachers and practising teachers. The practising teachers in Fiji are guided by certain official documents and teach according to set timetables. They have a Scheme of Work (SOW) which is an official document which dictates what and when to teach within specific time frames. Apart from that, they make weekly plans and are expected to complete all the stated tasks by the end of the week. Therefore, they will aim to teach consistent with the SOW as well as weekly plans. Their expectations are twofold: Firstly, to cover the curriculum as stated in the SOW and the work plan, and secondly for pre-service teachers to follow the set routine. However, they have to accommodate pre-service teachers who are eager to try out MC pedagogies from the College. This arrangement causes a lot of disturbance as integration and differentiation are time consuming activities. Moreover, practising teachers have to modify their pedagogies so that pre-service teachers are able to complete their practicum tasks.

The associate teachers also need briefing about the MC Unit and the expectations of the College for the practicum. This would develop a better relationship between the pre-service teachers and the associate teachers who are viewed as mentors and role models. Data further revealed a lack of communication between the schools and the College because there were clearly gaps between the expectations of the Teachers College and the schools. The College needs to work in collaboration with the CDU and the MC schools so that schools do not have to change their system to allow the pre-service teachers to meet the requirements of their practicum. Otherwise the practicum will become a futile exercise with minimal benefit to children in MC situations.

#### *6.4.2.4 Safety and Security*

The findings further suggest the need for strengthening of safety and security of the pre-service teachers during the MC practicum. This especially concerns female pre-service teachers posted to rural areas for six weeks during the practicum. Staying in new environments, in makeshift quarters and without access to electricity or mobile phone services places an extra burden on pre-service teachers and can have adverse effects on their performance in the classroom. As such, the practicum needs to be more supportive of the preparation program by offering a friendlier and safer environment for the pre-service teachers to successfully complete the requirements of the MC practicum. This can be achieved if the Teachers College increases its cluster of practicum schools and posts pre-service teachers to places that have better facilities. This issue can also be addressed to a large extent if pre-service teachers stay together instead of alone in isolated classrooms.

#### *6.4.2.5 Stipend Impediment*

It is important to consider the significance of timely disbursement of stipends to the pre-service teachers, especially before the practicum. Pre-service teachers depend on this stipend to buy their stationery and personal items to take on the practicum. Findings revealed that due to bureaucratic hindrance, pre-service teachers did not receive their stipends before leaving for their practicum. Some pre-service teachers received their stipends during the second and third week of the practicum and spent most of it on transport, as they had to hire vehicles from rural and remote areas to reach the nearest towns to buy the essential items. This can have a demoralising effect on pre-service teachers and affect their performance in the classroom.

### *6.5 Implications*

Several implications for the implementation of a MC program in preparing pre-service teachers for teaching in MC situations have arisen from this study. Based on the discussions

of the perceptions of the pre-service teachers, implications are drawn with reference to the following areas:

1. The MC Unit
2. The MC Practicum
3. Teacher Educators
4. In-service Education
5. The College/Fiji National University

#### *6.5.1 The Multi-class Unit*

Pre-service teachers expressed the need for a more inclusive content that is more contextual and relevant to the needs of the Fijian children. Thus the first implication is that the Unit should include a variety of MC pedagogies which embrace the practices currently implemented in MC teaching situations in Fiji. This arrangement would reduce the gaps in expectations between pre-service teachers and practising teachers.

#### *6.5.2 The Multi-class Practicum*

This study found that 15% of pre-service teachers did not get the opportunity to teach in MC situations during the practicum. These pre-service teachers raised their concerns about not getting the opportunity to teach in MC schools. They felt that they had been disadvantaged as they were unable to attend to all the MC competencies as required by the practicum. The lecturers and associate teachers argued that it was not appropriate to post pre-service teachers to straight class schools to complete their MC program. A second implication is therefore, that the pre-service teachers need a supportive practicum so that they are able to successfully complete all the requirements of the MC practicum. According to literature, a practicum that supports the theoretical components of a pre-service teacher education program facilitates the implementation of relevant strategies (Evans, 2010; Pridmore, 2007; Smith, 2007).

### 6.5.3 *Teacher Educators*

Teacher educators need to be well abreast of the dynamics of MC teaching because it is complex. They need to understand the MC concept and how it contributes towards achieving basic education in rural and remote areas. A third implication is that teacher educators need to upgrade their qualifications and become researchers so that their findings can contribute towards better understanding of the MC concept. This action will enable a better delivery of the MC program which will be of great benefit to the pre-service teachers.

### 6.5.4 *In-service Education*

Despite a strong commitment by the MOE in Fiji to MC teaching, not much attention has been given to in-service training. Many teachers teaching in MC situations did not go through any training in MC teaching. Difficulties arise when these teachers become associate teachers for pre-service teachers during practicum. Associate teachers play an important role in the MC program and they need to be equipped with new knowledge and skills so that they become better mentors and role models for pre-service teachers. A fourth implication is that the MOE as the sole body in charge of education-related activities in Fiji should look into providing in-service training to its MC teachers. In-service education allows practising teachers to be abreast with the new pedagogies and practices. The arguments in favour of in-service education are many, and there are cases that illustrate its importance to MC schooling (Little, 2007; Pridmore & Vu, 2007; Suzuki, 2007; Yembuu, 2006).

### 6.5.5 *The College/Fiji National University*

The transition from the College to a University Campus places extra demands on the scope and quality of services provided. The Teachers College needs to take a more proactive role in reaching out to the schools and other stakeholders. A fifth implication is that there needs to be better communication between all the stakeholders in the MC preparation

program. The College needs to liaise with the MOE regarding curriculum and expectations of teachers, especially in MC teaching situations. These changes would enable a smooth transition for the pre-service teachers in adjusting to the school system. It is also important for the College to create a cordial relationship with the head teachers, school managers and the school committees so that better deals and arrangements can be made for the pre-service teachers during the practicum.

### *6.6 Recommendations*

Given the implications of the study, recommendations are made for improvement in the following areas:

1. The College/Fiji National University
2. The Schools
3. The Ministry of Education

#### *6.6.1 The College/Fiji National University*

It is recommended that the College review its MC program. Despite making a good start, the MC Unit needs to be reviewed and revised to make it more relevant and applicable to the local context. Although it is unlikely that any single pedagogy will lead to significant improvements in student learning in MC situations because synergy is needed between all of the components, more MC pedagogies should be included as only a few are currently covered in the MC Unit. There are international texts (Cornish, 2006; Little, 2007) available on MC teaching that can be used as a basis for changes or a rewrite of the current Unit material. Moreover, this study could be used to add a local perspective to MC curriculum strategies and MC teaching and learning. The topics in the Unit also need to be rearranged so that aspects of assessment are covered before the practicum. This would help the pre-service teachers to try out the different assessment techniques during the practicum.

The MC practicum provides the real experience of teaching where the pre-service teachers build upon what they have learned in the Unit. Therefore, it is strongly recommended that all pre-service teachers should be posted to MC schools during the MC practicum. A MC program needs a MC practicum to allow pre-service teachers to implement the MC pedagogies they have been taught and try out different classroom management skills. Having experience in MC teaching during the practicum will enable pre-service teachers not only to gain knowledge and skills but also to gain confidence in teaching and managing more than one class at a time. The safety and security of pre-service teachers should not be compromised during the practicum and special checks should be made to see that the boarding facilities are up to the required standards. Creating a supportive teaching and learning environment is vital for pre-service teachers to meet all the requirements of the practicum successfully.

The recommendation regarding in-service training is in line with concerns expressed by pre-service teachers as well as practising teachers. There was a high demand for in-service training as there were many practising teachers who were teaching in MC situations without any formal training in MC practices. The problem further escalates when these teachers become associate teachers for the pre-service teachers. These practising teachers will be able to provide better guidance and mentoring to the pre-service teachers if they have undergone in-service training in MC pedagogies and practices. The College could develop an in-service training program using the same MC Unit or develop a similar text so that it better prepares practising teachers to support the pre-service teachers during MC practicum.

It is important for the lecturers as teacher educators to be aware of the dynamics of MC education so that they are better able to equip the pre-service teachers for a life of MC teaching. They ought to upgrade their own knowledge and understanding of the MC concept as it has a very wide scope and has co-existed with straight class teaching over the years. The

lecturers also need to keep abreast of the content of the MC program even if they are not teaching in it because after all, they engage in supervision duties during the practicum.

Finally, the College needs to take a more proactive role in reaching out to the schools and other stakeholders. It also needs to liaise with the MOE regarding curriculum and expectations of teachers, especially in MC teaching situations. This would enable a smooth transition for the pre-service teachers to adjust to the school system. Similarly, staff development sessions need to be organised for lecturers as well as associate teachers so that everybody has a better understanding of the MC program.

#### *6.6.2 The Schools*

MC schools provide the context for the practicum and, as such, they should provide a conducive environment for teaching and learning, especially for pre-service teachers. Schools should have mandatory resources in order to effectively offer quality education to children who are already disadvantaged due to the demographic location of such schools. Posting pre-service teachers to non-performing schools can have an adverse effect on their concept of MC teaching. As indicated in Chapter 2, many MC schools are under-resourced. As such, it is recommended that school management liaise with the staff of MOE as well as NGOs regarding financial and educational aids. When schools become well resourced, they can become model schools that can be used for practicums every year as well as for in-servicing of practising teachers and teacher educators. According to the literature, some scholars have taken this a step further and suggested that “partnership needs to be transformed into dynamic alliance” (Crozier et al., 1990, pp. 44-45). Consequently, schools could be recognised for their assistance and incentive could be given to the teachers for their assistance (Turney et al., 1982).

### *6.6.3 The Ministry of Education*

It is recommended that the MOE work more closely with the Teachers College regarding curriculum planning and when implementing new initiatives in the education system. The MOE needs to supply sufficient information about the various policies and official documents to the College. This will enable pre-service teachers to be abreast with the MOE rules and regulations. This knowledge would be of great help to pre-service teachers when they go out for their practicum and for future employment.

MOE can reduce the gaps between the expectations of pre-service teachers and practising teachers through dialogue and better dissemination of knowledge. Officers from the Curriculum Advisory Section (CAS) of the MOE need to constantly brief the College about changes to the formats of the SOW and other official documents. Practising teachers have a set program, a syllabus, and a set of curriculum materials that have to be covered in a stipulated time frame. Everything is laid down and followed in block timetables. However, pre-service teachers do not seem to fit in well in the jigsaw puzzle and unknowingly cause delays in curriculum coverage. Pre-service teachers need to be well informed about the requirements of the MOE so that they can adjust their teaching accordingly.

### *6.7 Reflections and Limitations*

The case study research design used in the research for this thesis used mixed methods to investigate the perception of pre-service teachers undertaking a MC program in Fiji. Data analysis involved two separate software applications (SPSS and NVIVO) as well as manual analysis for qualitative information. As the researcher, I learned a considerable amount about case study design and data collection and analysis. I have also reflected on the research design and methodology. I believe that using mixed-methodological research helped in

overcoming some of the obstacles that impede a unified body of knowledge, particularly in a study of a complex issue like MC education.

While having the strength of the methodology, research using mixed methods simultaneously presented its fair share of difficulties. Principally, this was due to the amount of time, effort and paperwork required during each of the four phases of the research. A second reason was the need to establish additional trustworthiness and quality assurance procedures of data collection and analysis. However, this also proved to be a major strength because clear research quality procedures were formulated and maintained. Validity and reliability tests were conducted with the quantitative aspects while Rasch Model was used to establish the dependability and confirmability of the items in the survey. The shortening of the MC program due to political circumstances meant less time for me to conduct the final phase of the research but all relevant data were gathered.

While every effort was made to circumvent repetition in this thesis, there were occasions where it could not be avoided. This happened because similar topics were discussed in each of the phases. Consequently, this situation contributed towards identifying some of the themes that have been discussed earlier in this Chapter.

### *6.8 Future Research*

MC teaching is complex and demanding in nature and the recent conference on this issue in South Africa recommended further research in this area (Jordaan, 2010). Millions of children worldwide are taught in such situations. Teachers in such contexts struggle to provide learning opportunities for the children using curriculum materials which are mostly designed for straight class teaching (Little, 2007). In many countries, MC schools are a necessity and are located in rural and remote areas (Cornish, 2006; Little, 2007; Pridmore, 2007; Vithanapathirana, 2010). At times MC teaching is viewed as second class when

compared to straight class teaching. Moreover, children in such situations are not only socially, financially and physically disadvantaged due to the remote locations of such schools, they are also deprived of basic learning resources – as they were in the present study. These schools are mostly under-resourced and are taught by teachers who have not had any training in MC teaching.

This research has discussed the perceptions of pre-service teachers who had the opportunity of undergoing a MC program as part of their Diploma in Primary Education. Although they were privileged to complete a specialised program in MC teaching - something most pre-service teachers worldwide are not able to do - the findings revealed that there is still room for improvement and, as such, future research is necessary to explore how various factors contribute to the effectiveness of MC education. Further research could be conducted by teacher educators or the MOE in Fiji. For example this could take the form of action research into ways of examining the impact of the new MC program on the performance of the children. Research enthusiasts could do a comparative study about the workload of MC teachers compared to teachers teaching in straight classes.

The findings of this research provide a strong foundation upon which further research could be initiated. Future research could be carried out in the following areas:

- This study found that, although the MC program was able to address most of the concerns of the pre-service teachers, its effectiveness remains unclear. Further investigation could, therefore, be carried out to find its impact on performance of the children in MC schools;
- Teachers in MC situations are usually deprived of access to better medical and social amenities due to the location of MC schools. They provide learning

opportunities to children with very limited resources. It would be worthwhile to examine how these teachers are able to cope with the challenges of MC teaching;

- Teacher educators need to be well versed in the logistics of MC teaching. They need to have good background knowledge of the contribution of MC teaching in developing as well as developed countries. Research could be initiated to ascertain the quality of the delivery of the MC program by teacher educators, especially into the kinds of support received by pre-service teachers while on practicum;
- This study has established the important role of a supportive practicum in a MC teacher education program. However, all pre-service teachers in this research did not get the opportunity to experience MC teaching during the practicum. It would be worthwhile to longitudinally track these teachers and monitor their transitions, adjustment and implementation of the MC pedagogies in MC schools compared with those teachers who had the MC posting;
- This study identified a significant gap between theory and practice, particularly the mismatch between pedagogies covered in the Unit and pedagogies in MC schools. Research could be undertaken to establish what pedagogies are implemented in schools and the impact of differing pedagogies on students;
- A teacher education program cannot operate in a vacuum and needs the support and understanding of different stakeholders. Teacher educators prepare pre-service teachers with knowledge and skills; schools provide the context for implementation of this knowledge and these skills. These schools are administered by head teachers and managed by school committees. The MOE provides staff for the schools, who act as associate teachers, while the parents

provide the physical manpower in cleaning the compounds and cooking for the children in hostels. It would be valuable to explore the roles of the different stakeholders and their contribution towards making education possible for hundreds of children living in rural and remote areas.

### *6.9 Conclusion*

Finally, a MC teacher education program can be effective if its content is applicable and if it is implemented well. A MC program needs a supportive practicum where the pre-service teachers are able to experience simultaneous teaching of classes and to implement MC strategies effectively. Going through a MC program can be a rewarding experience when pre-service teachers are equipped with a variety of delivery techniques, adequate materials, and receive proper pedagogical and administrative monitoring and support. MC teaching is more demanding and challenging than straight class teaching. Having completed a MC program in a pre-service teacher education course places these teachers in an advantageous position compared with counterparts who did not get this opportunity. This is because effective MC teaching requires trained and motivated teachers.

While MC schools have existed in Fiji since the inception of the formal education system, the College MC program is new and is a result of the project initiated by AusAID in 2004. Up to the present time MC teachers have modified and adopted many straight class pedagogies effectively in MC schools. These pedagogies need to be incorporated into the new program. Additional pedagogies mentioned in the MC program should be communicated to practising teachers. This intervention could take the form of face-to-face in-service training or through flexible and distance learning.

The Government of Fiji has recognised the important role of MC schools in achieving universal primary education goals. The Government continues to work hard to make education

affordable and accessible. The increased number of schools, payment of tuition fees, improved grants to schools, supply of free textbooks in primary schools and payment of bus fares are just some of the ways the Government is attempting to ensure all children have a minimum of 12 years of schooling. The Government is specially targeting remote and rural primary schools that are mostly MC in nature to ensure they are adequately resourced and are well staffed. The MOE has upgraded the Teachers College to improve the quality of teachers. The MC program is a laudable initiative but it can become more effective by implementing the recommendations of this study. This will not only reduce the gaps in current knowledge in MC teaching but also make the MC program one of its kind that could be implemented in other teacher training institutions in the region and beyond.

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*Appendices***Appendix A***A.1 Checklist for Preparations for Pre-service Teachers*

Item	Yes	No	Comment
Biography to be posted on classroom notice board (may include a photograph)			
Copy of class timetable			
Schedule of Week 1 lessons to be taught			
Week 1 – Weekly Program			
Daily programs for each day of Week 1			
Lesson plans for each lesson to be taught during Week 1			
Teaching aids to support Week 1 lessons			
Reflective Journal book			
Folder for Beginning Teacher Kit materials			
Teaching Practice file			
Copies of Prescriptions in all subjects (if not available in host school)			

*A.2 Competencies Required from Pre-service Teachers and Indicators*

Competencies	Indicators of effective practice
Use appropriate learning resources	<ul style="list-style-type: none"> <li>• Pre-service Teacher (PT) uses learning resources that help explain/practise the ideas/skills being taught</li> <li>• PT uses learning resources that are readily available in the practicum setting</li> <li>• PT makes sure that every child has “hands on” experience with learning resources</li> <li>• PT makes sure that each child can use/read the selected learning resources</li> </ul>
Identify how MC teaching strategies are used to organise learning programs to benefit groups and individuals.	<ul style="list-style-type: none"> <li>• PT lists the MC teaching strategies used by the AT to cater for the learning needs of individuals in the class</li> <li>• PT explains how the Associate Teacher (AT) uses MC teaching and management strategies to teach individuals and small groups in his/her class</li> </ul>
Use MC teaching strategies to organise learning programs to benefit individuals and groups	<ul style="list-style-type: none"> <li>• PST uses integration and differentiation to organise learning programs to benefit individuals and groups within the class.</li> </ul>

*A.3 Professional Practice Assessment Form*

**LTC - ASSESSMENT OF STUDENT TEACHER COMPETENCIES AND ATTRIBUTES  
TEACHING PRACTICE 3 ASSESSMENT FORM**

STUDENT NAME: \_\_\_\_\_ ASSOCIATE TEACHER: \_\_\_\_\_ CLASS: \_\_\_\_\_  
SCHOOL: \_\_\_\_\_ LECTURER-TUTOR: \_\_\_\_\_ BLOCK DATES: \_\_\_\_\_

COMPETENCIES (Tick)	AT (Week 1)			AT + L-T (Week 2)			L-T + AT (Week 4)			Summative Comments (L-T + AT – Week 4)
	ND	E	HE	ND	E	HE	ND	E	HE	
<b>Professional Interest &amp; Involvement</b>										(Attendance – Professional Behaviour – Contribution to host School and Community)
Punctuality and reliability										
Personal presentation, dressing and manners										
Contribution to class organisation										
Response to advice and criticism										
<b>Planning &amp; Preparation</b>										
Writes clear aims and objectives										
Lesson plan clearly written – basic steps clearly outlined										
Workbook and Attendance Register prepared and maintained										
Use of suitable teaching aids and resources										
<b>Lesson Procedures</b>										
Introduction										
Development										
Conclusion										
Evaluation										
<b>Classroom Management &amp; Communication</b>										
Observes classroom rules										
Time management										
Organises appropriate seating arrangements										
Instructs with clarity and precision										
Uses appropriate questioning techniques and provides feedback to children										
<b>Professional records and other assigned tasks</b>										RECOMMENDED RESULT: (Circle one) SATISFACTORY / UNSATISFACTORY
Student's record of attendance and lesson tally sheet filed and endorsed										L-T Sign/Date: AT Sign/Date: ST Sign/Date:
Teaching Practice File collated, indexed and presented and endorsed										
Teaching practice tasks and other assigned tasks completed on time and endorsed by AT										

**Ratings:**

**ND – Needs development** – these are the competencies that the ST does not do at all or does not do well. They are the competencies that the ST needs to focus on with the help of the S-L and the AT.

**E – Effective** – these are the competencies that the ST does well most of the time. Performance is satisfactory but the ST needs to continue to work on improving performance in these competencies.

**HE – Highly effective** – these are the competencies that the ST does very well nearly every time. They are the ST's strengths.

*To satisfactorily complete Professional Practice 3, a student teacher must have **Effective** (or **Highly Effective**) ratings for all criteria on the Assessment Report by the last day of the block teaching practice.*

**Appendix B**

*B.1 Questionnaire Survey for Pre-service Teachers 2009*

**Pre-Intervention**

The aim of this research is to develop an understanding of pre-service teachers' experiences of their preparation for the MC practicum. This research is under taken as a doctoral study at the University of New England.

Prior permission has been taken from the Ministry of Education, Ref E24/2/3. This research also has also been approved by the University of New England's Human Research Ethics Committee Ref HE08/107. Ethical issues will be taken into consideration throughout the course of this study and no personal and private information will be revealed at any time. Your identity will be confidential. All information will be presented in general terms and individuals will not be identified.

Please be assured that participation in this project will mean no extra work to you. Participation is entirely voluntary and you may withdraw your involvement at any time without having to provide a reason for doing so. If you decide not to participate or to withdraw from participation, you will not be disadvantaged in any way. You have a right to decide whether you would like to be part of this research or not.

The author will really appreciate if your responses are as honest and as complete as possible.

The questionnaire is divided into three sections:

Section A	Demographic information
Section B	Concerns and perceptions before undertaking the MC practicum.
Section C	Seeks your views in addressing your concerns

It will take about fifteen minutes to complete. Thank you for taking the time to fill in the questionnaire.

**Section A: Demographic Data**

This section of the questionnaire collects demographic data about you

1. Name: (Optional).....

2. Gender (*Please tick*)

MALE  FEMALE

3. Race (*Please tick*)

Indigenous Fijian  Indo-Fijian  other (*write in space below*)  
 \_\_\_\_\_

### Section B: Pre-Unit Questionnaire Survey

This section of the questionnaire focuses on the concerns of the pre-service teachers in regards to MC teaching prior to undertaking the MC program of study. Sixteen statements are given below. Reflect on each statement and place a tick in the appropriate column.

Alongside each are five columns marked, SA strongly agree, A for agree D for disagree, SD for strongly disagree and U for unsure or not decided. Reflect on each statement. Then place a tick (✓) in the column that applies to you.

	<b>Statement</b>	<b>SA</b>	<b>A</b>	<b>D</b>	<b>SD</b>	<b>U</b>
1	I attended a MC school when I was in primary school					
2	I did my first practicum in a MC school					
3	I have never had any experience of a MC situation					
4	I have ample knowledge about MC teaching					
5	I am prepared well enough for the MC practicum					
6	I know how to give support to children with learning difficulties					
7	I am quite familiar with a variety of assessment techniques					
8	I am well equipped to perform administrative duties					
9	I have ample knowledge about integration and differentiation					
10	I am able to work with children and parents of other ethnic groups					
11	I am able to implement MC teaching strategies with ease.					
12	Teaching in MC context is not an issue for me					
13	I have developed my ability to reflect critically on my own practice to improve the quality of my work					
14	I think 6 weeks of theoretical work is enough preparation for the practicum					
15	I hope the MC unit will prepare me well for the practicum					
16	I am looking forward to learning more about MC teaching					

Section C: The Unit Content

This part seeks your views about how the content of the MC program.

1. What is meant by the term MC teaching?

.....  
.....  
.....

2. What concerns if any do you have before taking this unit?

.....  
.....  
.....

3. How well do you think the course will address your concerns?

.....  
.....  
.....

4. How do you think the 6 weeks of course work will prepare you for 6 weeks of MC teaching practice?

.....  
.....  
.....

5. What type of support do you expect from your lecturers during your course work?

.....  
.....  
.....

**Optional:** If you are interested in talking to the author about your experiences during the course and the practicum, please write your name here.

.....  
.....  
.....

Thank you for your assistance.

*B.2 Pre-unit Interview Protocol*

<b>Pre-Unit Interview Protocol</b>	
<b>Name (Optional):</b> .....	<b>Gender:</b> .....
<b>Fijian/Indo-Fijian:</b> .....	
<b>Background:</b> .....	
1. Did you attend MC school when you were a student? ..... .....	
2. When did you first hear the term MC? ..... .....	
3. What do you think MC teaching means? ..... .....	
4. What are some of your concerns before taking the unit? ..... .....	
5. What are some of you concerns about MC practicum? ..... .....	
6. What are some of your expectations from the MC preparation program? ..... .....	
7. Any other comment you would like to make? ..... .....	
8. Are you willing to avail yourself for an interview at the end of the semester?	
Yes <input type="checkbox"/>	No <input type="checkbox"/>

B.3 Phase2 Interview Protocol

<b>Name (Optional):</b> .....	<b>Gender:</b> .....
<b>Fijian/Indo-Fijian:</b> .....	
<b>Background:</b> .....	
1. How prepared are you for the multi-class practicum? ..... .....	
2. Did the 6 weeks of preparation program prepare you adequately for the multi-class practicum? ..... ..... .....	
3. What aspects of the program do you believe will be effective during the practicum? ..... ..... .....	
4. How confident are you in handling a multi-class for 6 weeks? ..... ..... .....	
5. Do you still have any concerns about the practicum? ..... ..... .....	
6. Any other comment you would like to make? ..... ..... .....	
7 Are you willing to avail yourself for an interview at the end of the semester?	
<input type="checkbox"/> Yes	<input type="checkbox"/> No

B.4 Phase 3 Interview Protocol

<b>Name (Optional):</b> .....	<b>Gender:</b> .....
<b>Fijian/Indo-Fijian:</b> .....	
<b>Background:</b> .....	
1. How well have you adjusted yourself in a multi-class situation? ..... .....	
2. Did the 6 weeks of preparation program prepare you adequately for the multi-class practicum? ..... ..... .....	
3. What aspects of the program have been effective during the practicum? ..... ..... .....	
4. Do you still have any concerns about the preparation program? ..... ..... .....	
5. Do you still have any concerns about the practicum? ..... ..... .....	
6. Any other comment you would like to make? ..... ..... .....	
7 Are you willing to avail yourself for an interview at the end of the semester?	
<input type="checkbox"/> Yes	<input type="checkbox"/> No

B.5 Associate Teacher Interview Protocol

<p><b>Name (Optional):</b> .....</p> <p><b>Fijian/Indo-Fijian:</b> .....</p> <p><b>School:</b> .....</p> <p><b>Classes taught:</b> .....</p> <p><b>School Background:</b>.....</p> <p><b>Teaching Experience:</b> .....</p>	<p><b>Gender:</b> .....</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 33%;">Class</th> <th style="width: 33%;">Male</th> <th style="width: 33%;">Female</th> </tr> </thead> <tbody> <tr> <td style="height: 20px;"></td> <td></td> <td></td> </tr> <tr> <td style="height: 20px;"></td> <td></td> <td></td> </tr> </tbody> </table>	Class	Male	Female						
Class	Male	Female								
<p><b>No. of students:</b></p>										
<p>1. How long have you been teaching in this school?.....</p> <p>2. How long have you been teaching in multi-class schools?.....</p> <p>3. How long have you been having pre-service teachers on practicum?.....</p> <p>4. How well do you believe the pre-service teachers have been prepared to meet the challenges of multi-class practicum?.....</p> <p>(a) Has the pre –service teacher displayed multi-class teaching strategies during the lessons taken?.....</p> <p>(b) What is your view of the pre-service teacher’s ability to implement classroom control and management skills?.....</p> <p>(c) Does the pre-service teacher have ample preparations and teaching aids for the lessons?.....</p> <p>(d) How effective do you believe is the preparation program for the pre-service teachers in preparing them for this practicum?.....</p> <p>.....</p> <p>(e) Any other comment you would like to make?</p> <p>.....</p> <p>.....</p>										
<p>Thank You</p>										

*B.6 Lecturers Interview Protocol*

<b>Name (Optional):</b> .....	<b>Gender:</b> .....
<b>Fijian/Indo-Fijian:</b> .....	
<b>School:</b> .....	
<b>School Background:</b> .....	
<b>Tutoring Experience:</b> .....	
1. What is your understanding of the term multi-class teaching? .....	
2. How effective you believe is the preparation program before the multi-class practicum? .....	
3 How well does the preparation program prepares pre-service teachers for meeting the challenges of multi-class practicum? .....	
(a) How well did the pre-service teacher(s) take the multi-class lesson? .....	
(b) What multi-class pedagogies did he/she(they) demonstrate in the lesson? .....	
(c) How can you as a Tutor assist the pre-service teachers during multi-class practicum? .....	
(d) What changes could be made to the preparation program to make it more relevant to multi-class teaching? ..... .....	
4. Any other comment you would like to make? ..... .....	

B.7 Pre-service Teacher Observation Checklist

**Pre-Service Teacher Observation Checklist**

DATE: .....

Classes.....

Participant.....

Lesson.....School.....

Competencies Observed	Indicators	Comments
Plan and present MC lessons.	<ul style="list-style-type: none"> <li>• The pre-service teacher [PT] has prepared a MC lesson plan</li> <li>• PST uses learning resources that help explain/illustrate/practise the ideas/skills being taught</li> <li>• PST uses learning resources that are readily available in the practicum school/ community</li> <li>• PST makes sure that every child has ‘hands on’ experience with the selected learning resources</li> <li>• PST makes sure that each child can use/read the selected learning resources</li> </ul>	
Implement MC teaching strategies to benefit groups and individuals	<ul style="list-style-type: none"> <li>• PST lists the MC teaching strategies used by the Associate Teacher [AT]</li> <li>• PST demonstrates how the AT uses MC teaching strategies in teaching a number of class groups</li> </ul>	
Identify how learning in different units is integrated	<ul style="list-style-type: none"> <li>• PST sees and imitates how the AT helps children to link and to apply their learning within a subject eg. counting skills in storytelling</li> </ul>	
Identify ways that differentiated learning activities are used in MC programs	<ul style="list-style-type: none"> <li>• PST lists the various ways that the AT sets different learning outcomes for different groups in the same lesson/learning activity</li> <li>• PST demonstrates the various ways that the AT manages groups working at different levels in the same subject</li> <li>• PST implements the various ways that the AT assesses the learning outcomes of individuals working at different levels in the same subject</li> <li>• PST follows the ways that the AT allocates individuals to differentiated learning groups and activities within the same subject</li> </ul>	

*B.8 Documentary data Checklist***Documentary Data Checklist**

DATE: .....

Document	What to look for?	Which research question it addresses?	Comments
Pre-service Teachers' Journals	<ul style="list-style-type: none"> <li>• Diary entries</li> <li>• Their thoughts about what MC teaching is all about</li> <li>• Their feelings about the assistance provided by the College</li> <li>• Their satisfaction with their preparation</li> <li>• The effectiveness of the preparation program in helping them during the practicum.</li> </ul>	<ul style="list-style-type: none"> <li>• What concerns do pre-service teachers have about MC teaching prior to undertaking their MC program</li> <li>• What aspects of their MC Unit do pre-service teachers perceive will be effective during their practicum?</li> </ul>	
Practicum Reports	<ul style="list-style-type: none"> <li>• Recording/analysis of observations</li> <li>• Linking of observations to program planning</li> <li>• How MC teaching strategies are used.</li> <li>• Ways differentiated learning activities are used in MC programs.</li> <li>• Use of thematic approaches to integrate learning programs</li> <li>• Associate teachers' comments and suggestions</li> </ul>	<ul style="list-style-type: none"> <li>• What aspects of the MC Unit are relevant and applicable during their practicum?</li> <li>• How effective do pre-service teachers perceive their overall MC program was in preparing them for MC teaching?</li> </ul>	

B.9 Questionnaire Survey for Pre-service Teachers 2009

Post-Intervention

The aim of this research is to develop an understanding of pre-service teachers' experiences of their preparation for the MC practicum. This research is under taken as a doctoral study at the University of New England.

Prior permission has been taken from the Ministry of Education, Ref E24/2/3. This research also has also been approved by the University of New England's Human Research Ethics Committee Ref HE08/107. Ethical issues will be taken into consideration throughout the course of this study and no personal and private information will be revealed at any time. Your identity will be confidential. All information will be presented in general terms and individuals will not be identified.

Please be assured that participation in this project will mean no extra work to you. Participation is entirely voluntary and you may withdraw your involvement at any time without having to provide a reason for doing so. If you decide not to participate or to withdraw from participation, you will not be disadvantaged in any way. You have a right to decide whether you would like to be part of this research or not.

The author will really appreciate if your responses are as honest and as complete as possible.

The questionnaire is divided into three sections:

Section A	Demographic information
Section B	Effectiveness of the pre-service teachers education program
Section C	Seeks your views on your feelings about the program in relation to the MC practicum

It will take about fifteen minutes to complete. Thank you for taking the time to fill in the questionnaire

Section A: Demographic Data

This section of the questionnaire collects demographic data about you

1. Name:  
 (Optional).....

2. Gender (*Please tick*)

MALE  FEMALE

3. Race (*Please tick*)

Indigenous Fijian  Indo-Fijian  other (*write in space below*)  
 \_\_\_\_\_

### Section B: Post-Unit Questionnaire Survey

This section of the questionnaire focuses on the effectiveness of the pre-service education program in preparing you for the MC teaching. Sixteen statements are given below. Reflect on each statement and place a tick in the appropriate column.

Alongside each are five columns marked, SA strongly agree, A for agree D for disagree, SD for strongly disagree and U for unsure or not decided. Reflect on each statement. Then place a tick (✓) in the column that applies to you.

	Statement	SA	A	D	SD	U
1	I have ample knowledge about MC teaching					
2	I know the pedagogies for MC teaching					
3	I have developed my skills in planning for MC teaching					
4	I have adequate theoretical knowledge on teaching and learning processes					
5	I had prepared well enough for the MC practicum					
6	I know how to give support to children with learning difficulties					
7	I am quite familiar with a variety of assessment techniques					
8	I am well equipped to perform administrative duties					
9	I have ample knowledge about integration and differentiation					
10	I am able to work with children and parents of other ethnic groups					
11	I am able to implement MC teaching strategies with ease.					
12	Teaching in MC context is not an issue for me					
13	I think 6 weeks of theoretical work prepared me well for the practicum					
14	I am well prepared to be able to maintain class discipline					
15	I have developed my ability to engage children actively in group work					
16	I believe the MC preparation program was very effective for me					

Section C: The Unit Content

This part seeks your views about the content of the MC teaching.

1. What do you now understand by the term MC teaching?

.....  
.....  
.....

2. What concerns if any, do you have after taking the pre-service teacher preparation program?

.....  
.....  
.....

3. How well did the program address your concerns?

.....  
.....  
.....

4. What aspects of the program were most relevant to MC practicum?

.....  
.....  
.....

5. How effective was the overall program in preparing you for the MC teaching?

.....  
.....  
.....

6. Any other comments you may like to make about the pre-service teacher program or the MC practicum?

.....  
.....  
.....

**Optional:** If you are interested in talking to the author about your experiences during the course and the practicum, please write your name here.

.....  
.....  
.....

*B.10 Post-unit Interview Protocol*

<b>Post-Unit Interview Protocol</b>	
<b>Name (Optional):</b> .....	<b>Gender:</b> .....
<b>Fijian/Indo-Fijian:</b> .....	
<b>Background:</b> .....	
1. What do you now understand by the term MC teaching? ..... .....	
2. How well did the MC preparation program prepare you for MC teaching? ..... .....	
3. What aspects of the program did you find to be very relevant to MC teaching? ..... .....	
4. What concerns do you still have in regards to the MC preparation program? ..... .....	
5. How effective you feel your education was in preparing you for the practicum? ..... .....	
6. If you could make some changes what changes would you recommend to be made to the MC preparation program so that it could prepare pre-service teachers better for the MC the practicum? ..... .....	
7. Any other comment you would like to make? ..... .....	
Thank You	

*B.11 Post-unit Interview Protocol used with fulltime Teachers*

<b>Post-Unit Interview Protocol</b>	
<b>Name (Optional):</b> .....	<b>Gender:</b> .....
<b>Fijian/Indo-Fijian:</b> .....	<b>Classes:</b> .....
<b>School:</b> .....	<b>Location:</b> .....
<p>1. How effective do you now find the MC program?</p> <p>.....</p> <p>.....</p>	
<p>2. Did the MC preparation program adequately prepare you for what you are now facing practically in the classroom?</p> <p>.....</p> <p>.....</p> <p>.....</p>	
<p>3. What aspects of the MC preparation program are you able to implement in the classroom?</p> <p>.....</p> <p>.....</p> <p>.....</p>	
<p>4. What aspects of the MC preparation program are NOT working for you?</p> <p>.....</p> <p>.....</p> <p>.....</p>	
<p>5. Did you discover any new strategy being implemented in the school apart from what you learnt?</p> <p>.....</p> <p>.....</p>	
<p>6. If you could make some changes what changes would you recommend to be made to the MC preparation program so that it could prepare pre-service teachers better for the MC practicum?</p> <p>.....</p> <p>.....</p>	
<p>7. Any other comment you would like to make?</p> <p>.....</p> <p>.....</p> <p>.....</p>	
<p>Thank You</p>	

*B.12 Piloted Survey Matrix*

Attributes	Was the question clear?	Was the question lengthy?	Was the question appropriate	How else can the question be structured	Did it take a long time	What else should I be asking?
What do you now understand by the term MC teaching?	✓	×	✓	It is simple	×	Relevant
How well did the MC preparation program prepare you for MC teaching?	✓	×	✓	Well structured	×	Relevant
What aspects of the unit did you find to be very relevant to MC teaching?	✓	×	✓	Well structured	×	Relevant

*B.13 Sample Interview Matrix*

	Appendix A.2	Appendix A.3	Appendix A.4	Appendix A.10
Question 4	What are some of your concerns before taking the unit?	How confident are you in handling a MC for 6 weeks?	Do you still have any concerns about the preparation program?	What concerns do you still have in regards to the MC preparation program?
Interviewee PT05	We should be prepared well enough to handle MC teaching umm with full confidence to take a class	I am fully confident because these 6 weeks has given me a lot of enhancement on my teaching criteria, on my teaching activities, this has prepared me a lot aaah with the aspects I will deal with during the practicum. Tutorials and workshops will be helpful in teaching in multi-grade classrooms	In lectures we should also deal with lower primary and upper primary like not generalized form. We should deal with lower and upper primary both; I have never taught in a MC, I have never been to a MC, sometimes I give work to class 1 I forget about class 2, I am still in the mood of single stream, but in upper primary even if you forget about them they will do something while class 1 and 2 will start making noise	We covered most of the things but something that I notice was that student teachers, they use this strategy, integration and differentiation but it is not used by the actual teachers in the field; it is only used by the student teachers, but teachers use other strategies such as single class strategy, they treat each class separate as they have a standard curriculum to cover for each class and combine only in General subjects.

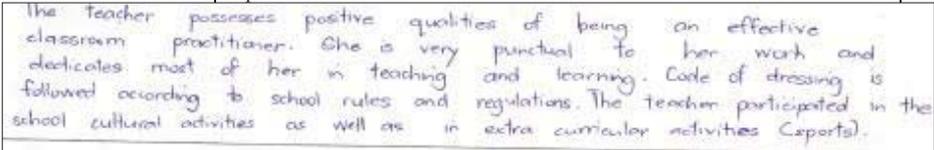
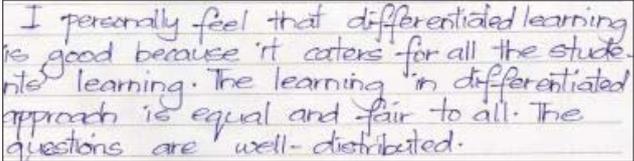
## B.14 Sample Observation Matrix

Competencies Observed	PT2/B.7, 2009	PT3/B.7, 2009	PT5/B.7, 2009
Plan and present MC lessons.	✓ Taught classes 1&2	✓ Taught classes 7&8	✓ Taught classes 7&8
Implement MC teaching strategies	✓ Actually she did not observe her AT integrating any lessons but she tried it out herself with the AT's permission	✓ Used group work effectively And demonstrated how MC teaching strategies are used in teaching 2 classes at the same time	✓ Used differentiated activities, but on his own, he did not observe his AT doing it; he just tried it on his own
Identify how learning in different units is integrated	✓ She was using the big book and integrating it with art & craft, actually this was her own initiative, the AT was supportive	✗ He was teaching both the classes separately using the two different sets of curriculum, imitating his AT	✗ He was taking a Mathematics lesson from their respective text books. He could have easily integrated the topics but was just following his AT
Identify ways that differentiated learning activities are used in MC programs	✓ The activities she gave were differentiated. She was able to demonstrate various ways that the AT manages groups working at different levels.	✓ Gave differentiated activities follows the ways that the AT allocates individuals to differentiated learning groups and activities within the same subject	✓ Very well demonstrated as he had only 6 children in both the classes, He easily moved from whole class to individuals

*B.15 Sample Document Analysis Matrix*

Document	<ul style="list-style-type: none"> <li>• What will it reveal</li> </ul>	Comments
Practicum Reports	<ul style="list-style-type: none"> <li>• Recording/analysis of observations</li> <li>• Linking of observations to program planning</li> <li>• How MC teaching strategies are used.</li> <li>• Ways differentiated learning activities are used in MC programs.</li> <li>• Use of thematic approaches to integrate learning programs</li> </ul>	
Pre-service Teachers' Journals	<ul style="list-style-type: none"> <li>• Their thoughts about the what MC teaching is all about</li> <li>• Their feelings about the assistance provided by the College</li> <li>• Their satisfaction with their preparation program</li> <li>• The effectiveness of the MC preparation program in helping them during the practicum.</li> <li>• The changes that could be made to make the practicum more meaningful</li> </ul>	

## B.16 Documentary Data Analysis Matrix

Individuals whose Journals and Practicum Reports were sighted	What concerns do pre-service teachers have about MC teaching prior to undertaking their MC teaching practicum?	How effective is the pre-service preparation program for pre-service teachers in preparing them for MC teaching during their practicum
TTD1/09	<p>The diary entries revealed that the pre-service was a bit nervous because of two reasons, firstly she had to stay with her AT and this was an issue as she hardly even stayed at her relatives place for more than a few days, how she can adjust with a completely new family. Secondly the fear of teaching two classes simultaneously, “how am I going to teach two classes at the same time, the preparation and all” seemed to be the major concern.</p> 	<p>She had quite fascinating view of the preparation program, stated in her diary that “practical work is far far different from all the theory we learn at the College, I just don’t know how these teachers adjust themselves in this environment and teach, there are no roads, no electricity and no mobile network forget about land line”</p> <p>The program is good as she got an overall grade of A in her practicum report. The AT’s comments were</p> 
TTD2/09	<p>He thought that MC teaching was teaching two classes at the same time but found out that in practice they are taught separately, the teacher moves from one class to another as the two classes are doing two different sets of curriculum materials. During lectures and workshops they were told that it is teaching of two classes simultaneously but it’s not what he found out. States that he would observe and follow how his AT takes the lessons</p>	<p>Implemented MC strategies especially during group work and tried out and saw that differentiated activities were working quite well with the children. He was able to link his observations to program planning as tried out differentiated learning activities were working well with the children.</p> 

## Appendix C

### C.1 Tree Nodes in NVivo

The screenshot displays the NVivo software interface for a project named 'PhD.mvp'. The main window is titled 'Tree Nodes' and shows a hierarchical structure of nodes. The left-hand pane lists various node types: Free Nodes, Tree Nodes, Cases, Relationships, Matrices, Search Folders, and All Nodes. The central pane shows a tree view with the following structure:

- Postconceptions of what MC means
  - 1 teacher more than a class with same or different curriculum
  - 1 teacher with 2 classes
  - 1 teacher with more than 1 class
  - 2 Classes using same or different curriculum
  - 2 or more classes, 1 teacher with children of different learning abilities
- Preconceptions of what MC means
  - 2 classes w. 1 teacher
  - 2 classes with children of different age groups
  - Composite Class
  - Teaching 2 classes at one time
  - Teaching a number of children
  - Teaching children with different abilities
  - Teaching more than a class
- Question 1. Concerns & expectations prior to program
  - Concerns
  - Content of program
  - Effectiveness of program
  - Expectations
  - Feelings
  - How Concerns could be addressed
- Question 2. Aspects of the MC Unit considered effective
  - Concerns after the MC Unit
  - Confidence Level
  - Preparation Program
  - Readiness for the Practicum
- Question 3. Effectiveness of MC Unit during practicum
  - Adjustment in Schools
  - Aspects of MC program
  - Concerns
  - Duration of MC Program
  - MC Preparation Program
- Question 4. Looking back on the Overall effectiveness of the MC program
  - Contribution of MC Unit towards Practicum
  - General Concerns
  - MC Practicum
  - MC Preparation program
  - Views of Practising Teachers

The bottom status bar indicates: WA, 153 Items, Sources: 40, References: 42, Unfiltered.

## C.2 Interview Data in NVivo

Suggestions for MC Program

<Internals\ET021109> - § 2 references coded [22.39% Coverage]

Reference 1 - 11.85% Coverage

**ET0211/09**

Make the multi-class program. The course book DPE230 to be more effective, especially the teaching practicum eh? All of us should be put in multi-class schools so that we can all have some experience in multi-class teaching

Reference 2 - 10.54% Coverage

**ET0211/09**

Include the new method, where we teach one curriculum one year and the next curriculum the following year. Also very important all trainees need to go to multi-class schools for the rural practicum

<Internals\ET031109> - § 1 reference coded [16.72% Coverage]

Reference 1 - 16.72% Coverage

**ET0311/09**

The inclusion of the one curriculum teaching and then another curriculum teaching should be included in the program apart from integration and differentiation. Other methods of preparing workbook and work on preparation of blue print, as we were only given the notes, needs to be emphasized.

<Internals\ET041109> - § 2 references coded [19.48% Coverage]

Reference 1 - 9.25% Coverage

**ET0411/09**

They should take the students to, and visit multi-class schools during their time at LTC; not only the practicum, but during the course they should visit some multi-class schools for observations

Reference 2 - 10.23% Coverage

Summary | **References** | Text

Legend:

- No MC Practicum
- Not given a MC posting

Categories:

- Suggestions
- Not Adequate
- Practicum Duration
- Suggestions for MC Program Improvement
- Coding Density

*C.3 Question B2 Pre-unit Survey Results*

I did my first practicum in a MC school

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	25	16.7	16.7	16.7
	2	8	5.3	5.3	22.0
	3	63	42.0	42.0	64.0
	4	51	34.0	34.0	98.0
	5	3	2.0	2.0	100.0
	Total	150	100.0	100.0	

1 - Strongly Agree

2 - Agree

3 - Disagree

4 - Strongly Disagree

5 - Unsure

*C.4 Prior Expectations*

Question C3: How well do you think the course will address your concerns?

<b>Colour Code</b>	<b>Remarks</b>	<b>Frequency</b>	<b>Percentage</b>
	Information/knowledge about multi-class	091	60
	Relevant teaching Strategies	016	11
	Prepare for the Practicum	016	11
	No Concerns	009	06
	How the course is delivered	007	05
	Miscellaneous	011	07
	Total Responses	150	100

## C.5 Question B10 Pre-unit Survey Results

I am prepared well enough for the MC practicum

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	6	4.0	4.0	4.0
	2	43	28.7	28.7	32.7
	3	59	39.3	39.3	72.0
	4	18	12.0	12.0	84.0
	5	24	16.0	16.0	100.0
	Total	150	100.0	100.0	

1 - Strongly Agree

2 - Agree

3 - Disagree

4 - Strongly Disagree

5 - Unsure

## C.6 Prior Concerns

What concerns if any do you have before taking this unit?

<b>Colour Code</b>	<b>Remarks</b>	<b>Frequency</b>	<b>Percentage</b>
	Teaching/managing a multi-class	050	33
	Content of the preparation program	021	14
	No Concerns	021	14
	Learning multi-class strategies	020	13
	Readiness for the practicum	016	11
	Effectiveness of the program	015	10
	Miscellaneous	007	05
	Total Responses	150	100

*C.7 Question B13 Pre-unit Survey Results*

I have developed my ability to reflect critically on my own practice to improve the quality of my work

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	58	38.7	38.7	38.7
	2	86	57.3	57.3	96.0
	3	1	.7	.7	96.7
	4	1	.7	.7	97.3
	5	4	2.7	2.7	100.0
	Total	150	100.0	100.0	

1 - Strongly Agree

2 - Agree

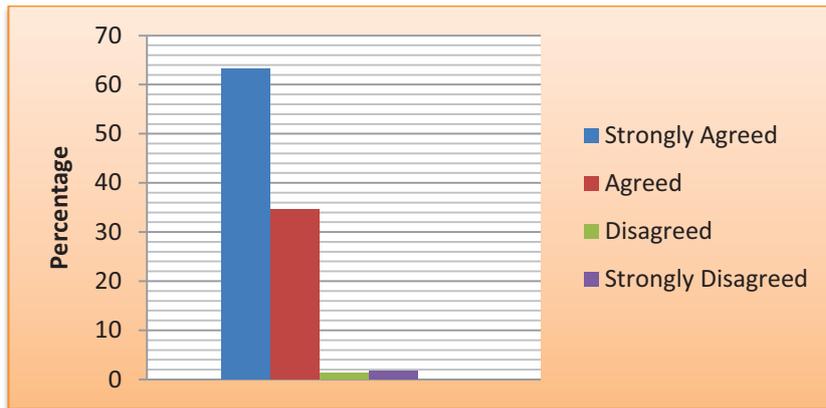
3 - Disagree

4 - Strongly Disagree

5 - Unsure

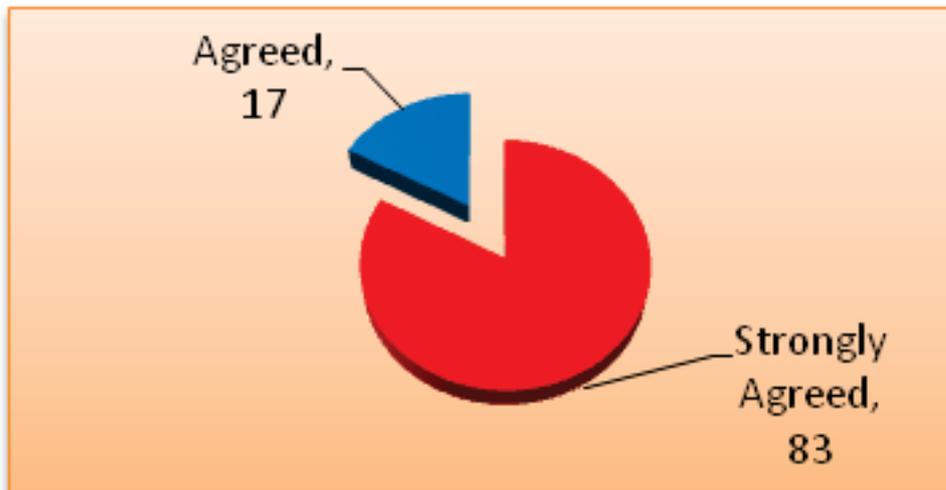
*C.8 Views Regarding the Practicum*

Response to item number 15: I hope the multi-class unit will prepare me well for the practicum.



*C.9 Question B14 Pre-unit Survey Results*

Response to item number 16: I am looking forward to learning more about multi-class teaching



*C.10 Question B1 Post-unit Survey Results*

I have ample knowledge about multi-class teaching

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	35	24.6	24.6	24.6
	2	94	66.2	66.2	90.8
	3	6	4.2	4.2	95.1
	4	1	.7	.7	95.8
	5	6	4.2	4.2	100.0
	Total	142	100.0	100.0	

1 - Strongly Agree

2 - Agree

3 - Disagree

4 - Strongly Disagree

5 - Unsure

*C.11 Question B12 Post-unit Survey Results*

Teaching in a MC context is not an issue of concern for me

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	23	16.2	16.2	16.2
	2	77	54.2	54.2	70.4
	3	17	12.0	12.0	82.4
	4	4	2.8	2.8	85.2
	5	21	14.8	14.8	100.0
	Total	142	100.0	100.0	

1 - Strongly Agree

2 - Agree

3 - Disagree

4 - Strongly Disagree

5 - Unsure

*C.12 Comparative Results*

Multi-class teaching is not an issue of Concern

