Review article

# Applied educational practice and research development of 'goals of best practice' (GsBP): philosophical inquiries and conceptual analysis for consideration

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ABSTRACT

In educational settings, the notion of 'achieving optimal best' in a subject matter (e.g., an elementary school student's achievement in her Year 6 Science project) is relevant for educators to consider. Optimal best, or optimal functioning, reflects the proactivity, positivity, and motivation of a person. How does a student achieve optimal best in Calculus? Our extensive research of optimal best has recognized the potency of the *process of human optimization*, which may operate to explain a person's successful experience and achievement of optimal best. Recently, researchers have considered another theoretical concept, which is termed as 'goals of best practice' (i.e., abbreviated as 'GsBP'). Goals of best practice, in brief, are personal goals that a person may construct and set for a particular context. Specifically, however, a 'personal goal' may indicate and espouse a person's *plan of intent* to either remain on course without any desire or aspiration (i.e., 'goal of actual best', denoted as 'GAB') or, alternatively, to strive for maximization (i.e., 'goal of optimal best', denoted as 'GOB'). This article is theoretical and conceptual, reflecting the use of the *paradigm of philosophical psychology* to advance the study of the concept of GsBP. Specifically, we contend that our conceptual analysis of GsBP, entailing both GAB and GOB may provide a logical basis and rationale for the proposition of educational implications for consideration and inquiries for continuing research development.

## 1. Introduction

Effective learning and quality school-based experiences are central elements of the successful schooling process, or processes. Relating to this testament is an interesting inquiry that is noteworthy for development – namely, the 'optimization', or the 'strengthening in buoyancy' of a student's schooling experience (Phan et al., 2017; 2019b). For example, what is it in school that may optimize a student's diverse schooling experiences? Does a teacher's use of effort feedback facilitate and/or optimize a Year 11 student's learning experience of Geometry? Does personal angst about a subject matter serve to 'de-optimize' a university student's enjoyment of Psych 101? These reflective questions, we contend, are of relevance, helping to elucidate and highlight the significant nature of an 'optimizing-related' concept: *optimal best practice* (Fraillon, 2004; Phan et al., 2016).

Optimal best practice (Fraillon, 2004; Phan et al., 2016), in brief, is concerned with "the maximization of a person's internal state of

functioning" (e.g., optimal physical functioning), situated within a particular context and timeframe (Phan, Ngu and McQueen, 2020b). Optimal best practice importantly, from our point of view, reflects the theoretical tenets of *the paradigm of positive psychology* (Seligman, 1999; Seligman and Csikszentmihalyi, 2000), which acknowledge the positivity and proactivity of human agency. In terms of academic learning, for example, a student may seek to inquire and/or to strive for optimal best in her learning of Chemistry (e.g., What is the best that I can do for myself? and Can I achieve my fullest potential?). In a similar vein, a football player may practice and/or undertake different strategies (e.g., daily engagement of meditation) in order to achieve an optimal state of scoring for the forthcoming 2022/2023 season.

Over the past 7–8 years, we have sought to inquire into the nature of optimal best of academic learning experiences. Our research undertakings, conceptually (e.g., Phan et al., 2020b; Phan et al., 2017) and empirically (e.g., Phan, Ngu, Wang, Shih, Shi and Lin, 2018c), have focused on the optimization of best practice in academic and

non-academic contexts (e.g., a senior citizen's optimal health well-being despite the Covid pandemic). For example, our existing research has provided clear and consistent evidence, which highlights the potential use of 'personal resolve' (Phan and Ngu, 2021c; Phan et al., 2018c), or a person's mental fortitude, to optimize the achievement of best practice. To advance this topical theme of optimization (Phan et al., 2017; 2019b), our recent inquiry considers a theoretical concept, which we termed as 'goals of best practice', denoted in this case as 'GsBP' (Phan et al., 2022). Goals of best practice, forming the premise of this philosophical inquiry and conceptual analysis article, may intimately relate to the process of optimization (e.g., Fraillon, 2004; Phan et al., 2017, 2019b) and offer additional pathways and/or means by which one could use to achieve a state of optimal best.

Overall, then, the focus of the present conceptual analysis article seeks to review and analyze in detail the nature of the recently developed concept of GsBP (Phan et al., 2022). Our intent, in this analysis, is to consider conceptually how GsBP could help optimize a person's positive experience and achievement of best practice in a subject matter (Phan et al., 2017; 2019b). In terms of objectives for analysis and philosophical discussion, we consider the following:

i. A detailed theoretical account of the concept of GsBP, which there are two contrasting types of goals: *goal of actual best* (i.e., denoted as 'GAB') and *goal of optimal best* (i.e., denoted as 'GOB').
ii. An examination of a rationale that postulates the potentiality for different types of GsBP to situate within and/or co-exist with the process of optimization (e.g., Fraillon, 2004; Phan et al., 2017, 2019b), which then could assist to optimize a person's internal state of functioning.
iii. The potentiality for the implementation of GsBP in educational and non-educational contexts, which in turn would encourage individuals to strive for achievement of optimal best practice in different domains of functioning.
iv. A proposition of inquiries for research consideration, especially in relation to clarification and/or advancement of the concept of GsBP.

## 2. Theoretical overview for development

The *study of human agency* (Bandura, 1997, 2002; Betz and Hackett, 1987; Reeve and Tseng, 2011), focusing on the autonomy, positivity, and proactivity of human behavior has attracted extensive research interests from scholars worldwide. One aspect of research development of human agency involves inquiries of a theoretical concept known as 'optimal best practice' or 'optimal functioning' (Fraillon, 2004; Liem et al., 2012; Martin and Liem, 2010; Phan et al., 2016). Our own research interest and subsequent inquiries, conceptually and empirically, have provided clarity and in-depth understanding into the following:

i. The nature of best practice, which espouses personal perception and indication of two main types: 'actual best' or 'realistic best', denoted as 'L_1', and 'notional best' or 'optimal best', denoted as 'L_2'.
ii. An underlying mechanism, or process, that could explain and/or account for the nature of levels of best practice.

In this section of the article, we provide an in-depth overview of existing research development, including our own, which seeks to understand the scope of best practice in different subject matters (Phan et al., 2020b).

### 2.1. The importance of best practice: an overview

'Best practice' is a positive term that reflects the proactivity, autonomy, and motivation of human agency. "What is my 'best' practice…?" is a phrase that we often hear people mention on a daily basis. Academically, for example, a student's best practice may entail their specific

undertaking in acquiring knowledge, experience, and/or understanding of and in a unit content. A first-year university student may indicate his 'best practice' in mathematics learning to others – "…. I am doing quite well…. my results so far indicate my best practice in Math 101".

Best practice differentiates and does not remain static over the course of time (Phan et al., 2020b). What an elementary school student knows about the Solar System (Source: https://solarsystem.nasa.gov/solar-system/our-solar-system/overview/) will no doubt change as she matures. The term 'levels of best practice', recently introduced (Ngu et al., 2019; Phan et al., 2018c), contends that a person's experience of best practice (e.g., a student's accomplishment in Math 101) may vary in accordance with time and their cognitive maturity.

The study of best practice, which Fraillon (2004) introduces in his seminal publication in the mid-2000s, considers two contrasting levels of best practice:

i. *Actual best*, denoted as 'L_1', which is defined as a person's indication of their current, realistic level of knowledge, skills, and understanding – that is, a person's realistic capability in a specific subject matter at the present time.
ii. *Optimal best*, denoted as 'L_2', which is defined as a person's indication of aspiration of striving of optimal knowledge, skills, and understanding – that is, a person's perceived optimal capability in a specific subject matter.

As shown in Figure 1, in accordance with Fraillon's (2004) theoretical account, a person's actual best, $L_1$, may serve as a point of reference, which then would enable him/her to strive and achieve optimal best, $L_2$. Fraillon's (2004) introduction of best practice provided interesting grounding for us to advance, resulting in our development and proposition of the *theory of human optimization* (e.g., Phan et al., 2016; Phan et al., 2017; Phan et al., 2019b). Human optimization theory contends that a state of $L_2$ requires some form of 'optimization', which may also incorporate and acknowledge a need for time displacement. In other words, the relationship between $L_1$ and $L_2$ or, alternatively, the impact of $L_1$ onto $L_2$ is not spontaneous and/or instantaneous. Rather, from our point of view, a temporal time displacement (e.g., a 3-month period) would assist and coincide with a person's experience and/or progress from one level of best practice to that of another level. In this analysis, taking into consideration Fraillon's (2004) theoretical premise, it is postulated that $L_1$ would closely associate with Time 1 whereas $L_2$, in contrast, would associate with Time 2. This conceptualization posits that levels of best practice are situated within a framework of time difference, such as Time 1, …. Time $n$, where $= 1, 2, 3,$ and 4. In their recent philosophical analysis, Phan et al. (2020b) posited that time difference between two time points (i.e., what is proximal distance in time from Time 1 to Time 2?) is dependent, in part, on the magnitude in complexity of $L_2$.

### 2.2. The importance of optimization

In accordance with the conceptualization shown in Figure 1, experience of $L_1$ in a specific subject matter at Time 2 may serve as a source of information, which then would directly account for and/or impact on the achievement of $L_2$ at Time 4 (i.e., $L_1$ at $T_2 \rightarrow L_2$ at $T_4$). Having said this, however, our proposed theory of optimization, termed as '*The Framework of Achievement Bests*' (Phan and Ngu, 2017a; Phan et al., 2017), posits that some form of 'optimization' would be needed to assist with the facilitation of achievement of $L_2$ from $L_1$. Phan and his colleagues (e.g., Phan et al., 2020b; Phan et al., 2019b) recently provided an in-depth overview and analysis of the process of optimization, which we have surmised its underlying mechanism in Figure 1 (Note: consult Phan et al., 2019b for in-depth explanation of the process of optimization). Ultimately, what is optimization? In brief, according to Phan et al. (2019b):

- There are *educational* (e.g., an appropriate pedagogical approach: Ngu et al., 2018), *psychological* (e.g., the effectiveness of optimism: Carver
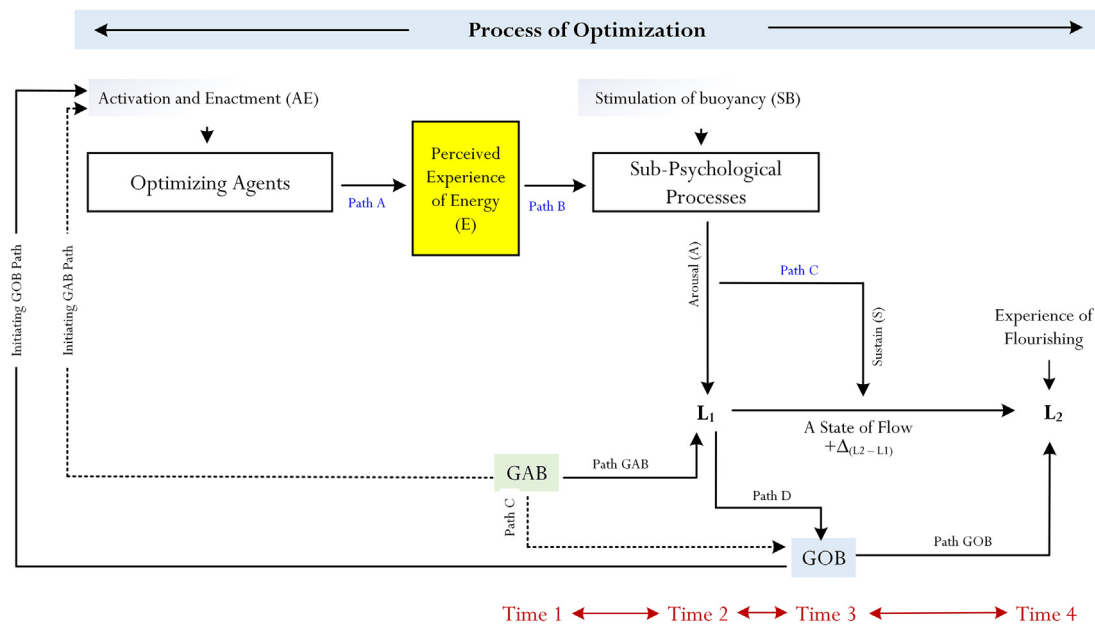
**Figure 1.** An In-depth Description of Levels of Best Practice and Goals of Best Practice. This visual conceptualization depicts the psychological process of optimization (Fraillon, 2004; Phan et al., 2019b), which may help to explain the relationship between $L_1$ and $L_2$.

and Scheier, 1999), and *psychosocial* (e.g., the impact of the home environment: Daulta, 2008) *agencies* that act to initiate the enactment of a psychological concept known as 'energy', denoted as 'E'.

- The *enactment of energy* (Phan et al., 2021; Phan et al., 2019b), as a propulsion, would then stimulate the buoyancy of different psychological variables, such as effort expenditure, personal resolve, etc.
- The buoyancy of psychological variables such as personal resolve, effort expenditure, etc., initiated from the enactment of energy (Phan et al., 2019b, 2021) would, in turn, *arouse the impact* of $L_1$ onto $L_2$ and *sustain* this association over time.

The above description, in a summarized form, illustrates the underlying process of optimization, which, according to Phan and his colleagues (e.g., Phan et al., 2020b; Phan et al., 2017, 2019b), would assist in the achievement of $L_2$ from $L_1$. According to Phan et al. (2019b), optimization is more than just a heightened state of motivation – that is, the 'optimization' of a student's learning in Calculus (i.e., a state of $L_2$) does not necessarily equate to her perceived state of motivation. Differing from a state of motivation (Franken, 2007), optimization in this case espouses and/or reflects a 'state of propulsion', energizing and propelling a person's experience from Time 1 to Time 2 (Phan et al., 2021) – that is, as an analogy, Phan et al. (2019b) equate the process of optimization, or the "optimization of a person's state of functioning" from Time 1 to Time 2, to that of "water being squeezed through a water hose or a water pump". This analogy is interesting as it seems to connote optimization as being some 'unknown positive force' that could act to propel a person's course of action for the purpose of achieving a state of $L_2$.

### 2.3. Achieving optimal best

Successful accomplishment of $L_2$ in a specific subject matter is a desirable feat. Optimal best, as the nomenclature connotes, is positive, proactive, and motivational. When we think of $L_2$, there are a number of characteristics and/or keywords that come to our mind – namely, *exceptionality, exceeding performance, optimism*, and *outstanding result* (e.g., "…. Thomas is exceptional….", "…. Melissa is exceeding….", "…. Bau-Yi's outstanding results…."). Indeed, optimal best is an antithesis of 'sub-optimal best' practice, which in this case espouses negativity, potential maladaptive functioning, and the perceived feeling of pessimism. Optimal best, as Phan and his colleagues (e.g., Phan, Ngu, Chen, Wu, Shi,

Shih, Wang and Lin, 2020a; Phan et al., 2020b; Phan et al., 2019b) attest, is contextualized to specific domains of functioning – for example:

- *Cognitive functioning:* A secondary school student's optimal cognitive ability of being able to successfully solve equations with two unknowns, for example – solve for $x$ and $y$: $x + 2y = 10$ and $5x - y = -20$.
- *Physical functioning:* A professional football player's optimal state of improving his scoring from 10 goals (e.g., 2021/2022 season) to 20 goals (e.g., 2022/2023 season).
- *Health functioning:* A senior citizen's optimal health despite the recent surge in Covid-19 Delta cases.

Optimal best, similar to that of $L_1$, we contend, is not generic in nature. *Contextualization of best practice*, in this sense, emphasizes the importance of 'specificity' (Bandura, 1997; Pajares, 1996) – that is, the specific nature of $L_2$ in studying Calculus *versus* the specific nature of $L_2$ in playing professional football. In a similar vein, in a recent conceptual analysis, Phan et al. (2020b) explored and discussed the contextualization of time of best practice. For example, in accordance with the authors' explanation, a state of $L_2$ that is extremely complex (e.g., a student's successful achievement of solving equations with one unknown, $x$, *versus* her successful achievement of solving equations with two unknowns, $x$ and $y$) would require more time into the future to complete. Despite such difference, a person's maximized state of functioning (e.g., optimal cognitive functioning, optimal physical functioning) is proactive and positive, reflecting their state of motivation, persistence, aspiration of intent, self-confidence, and optimism. On this basis, it is noteworthy and a valuable endeavor to strive for a state of $L_2$ from $L_1$.

### 2.4. Research development

The study of best practice, especially in relation to Fraillon's (2004) theorization (i.e., the importance of $L_1$ and $L_2$ and their association), has received considerable theoretical and empirical contributions from us. We acknowledge that our empirical undertakings, which consist of non-experimental data using Likert-scale measures, do not accurately measure and/or assess the process of optimization, as Phan et al. (2019b) proposed in their conceptual analysis article. Using Fraillon's (2004) theoretical account of best practice, we developed a Likert-scale questionnaire in 2015, which we term as the 'Optimal Outcomes

Questionnaire' (Phan et al., 2015), for usage. In tandem with other Likert-scale questionnaires, our empirical research involving secondary and university students has resulted in the following outcome:

- The factorial structure of the Optimal Outcomes Questionnaire, which yields appropriate one-factorial structures of the two subscales: The *Realistic Best Subscale*, $L_1$, and the *Optimal Best Subscale*, $L_2$ (Phan and Ngu, 2021b; Phan et al., 2018c). At the same time, evidence established supports existing theorizations (Fraillon, 2004; Phan et al., 2019b), which suggests $L_1$ would act a source of $L_2$ (Phan and Ngu, 2021c; Phan et al., 2018c).
- The validation of the psychological concept of energy, which could serve as a mediator and direct predictor of $L_2$ (Phan et al., 2021). For example, using structural equation modeling (SEM) techniques (Kline, 2011; Schumacker and Lomax, 2004), we found that a perceived sense of energy positively influenced a state of $L_2$ ($\beta = .24$, $p < .01$).
- That there are different types of antecedents that could account for a person's experience of $L_1$ and $L_2$ (Phan and Ngu, 2021c; Phan, Ngu, Wang, Shih, Shi and Lin, 2019a). For example, in a study that involved secondary school students, we found that the concept of 'personal striving' served as a direct predictor of $L_1$ ($\beta = .21$, $p < .01$) (Phan and Ngu, 2021c). In a similar vein, Phan, Ngu et al.'s (2018c) analysis of university students' responses noted that different psychological variables positively influenced $L_2$: effective functioning ($\beta = .17$, $p < .01$), personal resolve ($\beta = .51$, $p < .001$), and positive emotions ($\beta = .12$, $p < .001$).
- That there are four distinct 'profiles', which arise from students' responses to the Optimal Outcomes Questionnaire. We found, for example, that a student's response to the two subscales, the Realistic Best Subscale and the Optimal Best Subscale, may categorize into four distinct profiles: Exceptional (High $L_1$, High $L_2$), Realistic (High $L_1$, Low $L_2$), Pessimistic (Low $L_1$, Low $L_2$), and Un-Realistic (Low $L_1$, High $L_2$) (Phan and Ngu, 2021b).
- Both levels of best practice are intricately associated with psychological variables and adaptive outcomes. For example, in a study that involved the use of SEM, Phan et al. (2019a) found that $L_2$ positively influenced personal well-being ($\beta = .28$, $p < .01$). In a similar vein, Phan and Ngu (2021c) noted from their analysis of secondary school students that both $L_2$ and academic achievement are positively associated with each other ($r = .46$, $p < .001$).

### 2.5. In summary

In summary, as the preceding sections have shown, there is credence to support the study of best practice (Fraillon, 2004; Phan et al., 2016). An analysis of existing empirical evidence shows a number of interesting and comparable themes that closely associate with the importance of levels of best practice. One theme that is of significance relates to the 'optimization' of a person's $L_2$ in a specific area of functioning (e.g., the optimization of a professional football player's scoring ability). What is it, for example, that would assist to optimize a university student's academic learning experience in a specific subject area? This reflective question, we contend, emphasizes the following relationship: antecedent → optimization → adaptive outcome. This relationship, coinciding with our previous research development, considers the nature of:

i. The importance of antecedents or sources of information, which may explain and/or account for a person's testament of $L_1$.
ii. The predictive effects of educational, psychological, and/or psychosocial variables on $L_2$, which in part could explain the process of optimization (but somewhat limited in terms of theoretical inference).
iii. The predictive effect of $L_2$ onto other adaptive outcomes (e.g., personal well-being).
iv. The close association between $L_1$ and $L_2$ (e.g., the predictive effect of $L_1$ onto $L_2$).

## 3. Goals of best practice (GsBP): an overview

Our interest in the aforementioned research inquiries (e.g., antecedent → optimization → adaptive outcome relationship) have led us to recently consider a best practice-related concept, which we termed as 'goals of best practice', denoted as 'GsBP' or 'GBP' (Phan et al., 2022). Goals of best practice, coupled with the *Goals of Best Practice Questionnaire* (i.e., GsBPQ) (Phan et al., In Press), have been conceptualized to assist in the explanation and theoretical account of optimal best. According to the extensive motivational literatures (Brunstein, 1993; Moriasano et al., 2010), there are different types of 'goal' theories – for example, *personal best goals theory* (Liem et al., 2012; Martin, 2011a; Martin and Liem, 2010), *achievement goal theory* (Elliot et al., 2011; Mascret et al., 2015; Van Yperen, Blaga and Postmes, 2014), etc. What is of significance, however, with our *theory of goals of best practice* (i.e., GsBP) (Phan et al., 2022) is that it places strong emphasis on the notion of best practice – that is, the construction and setting of a personal goal that would assist and/or guide a student, say, to strive for successful accomplishment of best practice (Phan et al., 2022). Moreover, our theory of personal goals is 'contextualized' or is situated to the specific context of best practice (Fraillon, 2004; Phan et al., 2016, 2018c) – namely, in this case, the experience of $L_1$ and the successful accomplishment of $L_2$.

In relation to our theory of goals of best practice, we postulate that there are two main goal types: *goal of actual best*, denoted as 'GAB', and *goal of optimal best*, denoted as 'GOB' (Phan et al., 2022). The two goal types, GAB and GOB, as we described, are contextualized towards the relationship between $L_1$ and $L_2$, and their associations with the process of optimization (Figure 1). This postulation is interesting as it emphasizes the intricate nature of GsBP – that the operational nature of a GAB and/or a GOB is intimately linked to the two levels of best practice (Fraillon, 2004; Phan et al., 2016). In this section of the article, we provide an in-depth explanation and overview of our conceptualization of the concept of GsBP.

### 3.1. Goal of actual best (GAB)

Goal of actual best, in accordance with our recent theorization (Phan et al., 2022), is one type of personal goal that a person may set and/or indicate. As the term suggests, GsAB are personal goals that are current and realistic, reflecting a person's indication of intent to remain on task with a particular trajectory or course of action without any change. As such, this goal type is *actual* and non-optimal, emphasizing a person's current state of contentment in terms of their knowledge, skills, understanding, etc. For example, with reference to different contexts, GsAB may consist of:

- A secondary school student's GAB of studying Calculus (e.g., "My goal for now is to ensure that I know how to solve the following….").
- A professional football player's GAB of being in the starting-11 for this 2022/2023 season (e.g., "My goal for now is to be in the starting-11 every week….").
- A senior citizen's GAB of staying fit (e.g., "My goal for now is to ensure that my health is up to date….").

Goals of actual best are time and subject specific. In relation to time, for example, GsAB are situated within the *present timeframe* – that is, a person's GAB for a specific subject matter (e.g., learning Calculus) reflects their current (e.g., today, Thursday, 28th April, 2022) and actual position in terms of indication of personal intention (i.e., a secondary school student's personal intention, *at present*, is to understand ….). In this sense, GsAB are actual, realistic, and may be non-aspirational and non-motivational in nature. We contend that in relation to the latter, a person's indication of his GsAB for a particular context may differ to that of another person, reflecting a specific level or lack thereof of aspiration and/or motivation.

### 3.2. Goal of optimal best (GOB)

Goal of optimal best, in accordance with our recent theorization (Phan et al., 2022), is a personal goal that is optimal in terms of intent. As the term suggests, GsOB are motivational, optimistic, and aspirational, but realistic in nature – that is, a person is capable of accomplishing such goals. As such, this goal type reflects a person's indication of their intent to strive for optimal best in terms of knowledge, skills, understanding, etc. in a specific subject matter. For example, in terms of different contexts, GsOB may consist of:

- A secondary school student's GOB of studying Calculus (e.g., "My goal is to achieve a result of 95% for my half-yearly exam….").
- A professional football player's GOB of scoring 25 goals for the 2021/2022 season (e.g., "My goal to work hard and be able to achieve an exceptional scoring record for the forthcoming season….").
- A senior citizen's GOB of experiencing optimal health (e.g., "My goal is to ensure that my health is optimal….").

Goals of optimal best, similar to GsAB, are subject specific but not necessarily time specific. For example, in relation to the above, a secondary school student's GOB may span the course of 3 months (i.e., the period of a school term) whereas a professional football player's GOB, in contrast, may span the course 9–10 month (i.e., the period of a football season). Moreover, from our point of view, GsOB reflect a person's realistic intent to strive for achievement of optimal best. As such, we contend that a person's indication of her GsOB for a particular context may differ to that of another person, reflecting a specific level of aspiration and/or motivation.

### 3.3. Relationship between GAB and GOB

From the preceding sections, the two goal types, GAB and GOB, are distinct in terms of their characteristics, which may help to discern different levels of best practice for accomplishment. This proposition, as shown in Figure 1, posits a potential dynamic cyclic loop and that both goal types may play a dual role: (i) to directly promote and encourage the successful achievement and experience of $L_1$ (i.e., Path GAB in Figure 1) and $L_2$ (i.e., Path GOB in Figure 1), and (ii) to activate different types of educational (e.g., an appropriate instructional design: van Gog et al., 2005), psychological (e.g., the potent role of hope: Snyder et al., 2000), and/or psychosocial (e.g., the relevance of social relationship: Raufelder et al., 2013) agents for the purpose of optimization (e.g., Initiating GAB Path from GAB *versus* Initiating GOB Path from GOB in Figure 1).

As shown in Figure 1, we conceptualize a temporal displacement or a time difference between the setting of a GAB, or GsAB, and the setting of a GOB, or GsOB. Logically, from our point of view, the setting of GsAB (e.g., at Time 1) has to precede the setting of GsOB (e.g., at Time 3), given that the latter goals are more complex (e.g., cognitive complexity in terms of solving problems in mathematics). Moreover, in terms of our rationalization, the setting of a GAB or GsAB at Time 1, say, could:

i.  Predict and account for the successful experience of $L_1$ at Time 2 (i.e., Path GAB), which in turn would initiate the setting of a GOB or GsOB at Time 3 (i.e., Path D), resulting in the achievement of $L_2$ at Time 4 (i.e., Path GOB). In other words, from this description, we have the following: Time 1 GAB → Time 2 $L_1$ → Time 3 GOB → Time 4 $L_2$.
ii. Form a solid basis for the setting of a GOB or GsOB at Time 3 (i.e., Path C), resulting in the achievement of $L_2$ at Time 4 (i.e., Path GOB). In other words, from this description, we have the following: Time 1 GAB → Time 3 GOB → Time 4 $L_2$.

It is plausible and achievable, of course, for a person to set both GsAB and GsOB concurrently (e.g., at Time 1). For example, in terms of academic learning of Psych 101 at the beginning of Semester 1, a first-year student may consider the following reflective statements and goals for

accomplishment: "I want to be able to successfully complete the three assessment tasks for this unit, Psych 101" (Note: this is an example of a GAB at Time 1), and "I want to be able to achieve an 'A' grade for this unit, Psych 101" (Note: this is an example of a GOB at Time 1). This consideration is not unreasonable, suggesting the likelihood that the student may have a definitive mindset to consider both $L_1$ and $L_2$ concurrently. However, having said this, we contend that the concurrent setting of both GsAB and GsOB at a particular timepoint (e.g., Time 1) is somewhat contentious and/or limited, as one would not have opportunities of time between the two goal types for personal understanding and/or or reflection.

Time precedence in social sciences research is an important factor (MacCallum and Austin, 2000; Marsh and Yeung, 1997; Phan and Ngu, 2016), which may account for theoretical understanding of individual growth, temporally-displaced effects of variables (e.g., Time 1 self-efficacy → Time 2 academic performance), and/or reciprocal associative patterns (e.g., Time 1 self-concept → Time 2 academic performance *versus* Time 1 academic performance → Time 2 self-concept) (MacCallum and Austin, 2000; Martin, 2011b; Phan and Ngu, 2017b; Rogosa, 1979). As such, we firmly believe that the proposition of the potential relationship between GAB and GOB, in tandem with successful experiences of $L_1$ and $L_2$ requires some form of a time precedence analysis. One distinctive characteristic, as shown in Figure 1, entails a personal need for individual reflection and contemplation with a view to improve. For example, a Year 11 student may contemplate several GsAB for the learning of Calculus at Time 1 by which his eventual successful or unsuccessful experience of $L_1$ at Time 2 would offer grounding for personal reflection. Personal reflection of progress, success, failure, etc. of $L_1$, in turn, would direct, facilitate, and/or motivate the student to consider the setting of GsOB at Time 3. In other words, from this example, the pathway of Time 1 GAB and Time 2 $L_1$ and the duration between the two concepts are crucial in the development and setting of GsOB at Time 3. A cross-sectional approach, in contrast, would not permit an analysis of the *effect* of time difference (e.g., does the duration between Time 1 GAB and Time 2 $L_1$ and/or the duration between Time 2 $L_1$ and Time 3 GOB make a difference?).

### 3.4. In summary

In summary, GsBP situating within the process of optimization (Fraillon, 2004; Phan et al., 2019b, 2020b) may help to explain the relationship between $L_1$ and $L_2$. This proposition of GsBP is significant, reflecting our effort to consolidate and to consider comparable theoretical concepts that could explain the operational functioning of optimization. In this sense, as we explored earlier, one possible pathway in terms of mechanism is the following: Time 1 GAB → Time 2 $L_1$ → Time 3 GOB → Time 4 $L_2$. This postulation is insightful as it emphasizes the unification of two interrelated theoretical orientations: levels of best practice and GsBP.

A significant aspect of our conceptualization of GsBP lies in our inclusion of time as a contextual factor – that there is a linear time trajectory, which may accurately account for the placement of GAB, $L_1$, GOB, and $L_2$. In other words, it is somewhat limited and illogical to consider the associations between GsBP and best practice as being instantaneous. This theoretical account, derived from Phan et al.' (2019b) theorization, is interesting, as it also offers a methodological depiction of how a person could experience *a state of flow* (Csíkszentmihályi, 1990, 1997; Csíkszentmihályi and Nakamura, 2018), which in this case reflects their deep engagement, enjoyment, absorption, and intense concentration. In this analysis, from our point of view:

- A state of flow, or flow state, experienced during the course of a specific subject matter is structured within a time span (e.g., Time 1 – Time 2, Time 2 – Time 5, etc.). This analysis contends that a person's state of flow is analogous to their successful progression and achievement of $L_2$ from $L_1$. This equivalency suggests and depicts,

interestingly, the following relationship: a state of flow in a subject matter $\approx +\Delta_{(L2-L1)}$ in a subject matter, where $+\Delta =$ indication of positive and/or quality difference between $L_1$ and $L_2$.

- Goals of best practice, spanning over a period of time (e.g., GAB at Time 1 and GOB at Time 3), may assist to explain and/or account for a person's experience of flow state in a specific subject matter. For example, from our previous conceptualization, a person's GOB or GsOB would assist to facilitate in the achievement of $L_2$ from $L_1$ (i.e., $+\Delta_{(L2-L1)}$), giving rise to their experience of a state of flow.
- The process of optimization, involving the enactment of energy, or propulsion (Phan et al., 2019b, 2021), which may also incorporate the operational functioning of GsBP (Phan et al., 2022) could account for and/or to assist to facilitate a state of flow.

## 4. Conceptualization for applied practice & research development

An important element of our conceptualization of GsBP relates to a focus on teaching and research development, especially in terms of applied practice, advancement of theoretical understanding, and methodological consideration for implementation. There are interesting issues, which we would like to consider – for example: can we use GsBP to encourage positive learning experiences? how would we accurately measure and assess the underlying nature of GsBP? and what would be an appropriate methodological design for usage in order to ascertain evidence and gauge into the underlying nature of GsBP?

### 4.1. Educational practice for consideration

One aspect of our research, in this case, relates to the transformation of theory into applied practice (Phan and Ngu, 2019). How can we capitalize on existing theories, such as the theory of GsBP to facilitate and/or to improve students' learning and non-learning experiences? This reflective question is significant as it emphasizes a need for researchers and educators to focus on the application of theory for educational and non-educational purposes.

### 4.2. Complexity of GOB, personal resolve, and threshold

From the preceding sections, our discussion has involved a detailed conceptualization, which seeks to advance theoretical understanding into the mechanism of the process of optimization (Phan et al., 2017, 2019b, 2020b). A major underlying premise of our philosophical inquiry, in this case, considers the potential significant nature of GsBP, especially the use of GsOB to help optimize a person's internal state of functioning (e.g., using a specific GOB to optimize a secondary school student's learning experience of Calculus). Ideally, on a daily basis, we would recommend different types of GsOB, which individuals could set and construct for achievement – for example:

- A personal GOB, which inspires and motivates a 4th-year university student to strive for achievement of *cum laude* by the end of the year.
- A personal GOB, which inspires and motivates a financial advisor to strive for achievement of exceptional net returns for clients by the end of the year.
- A personal GOB, which inspires and motivates a research scholar to publish 25 articles for the forthcoming year.

The above examples are of significance, highlighting two key characteristics: (i) the contextual nature of a GOB (e.g., the goal of achieving optimal best in academic learning *versus* the goal of achieving optimal best in the world of academia), and (ii) the complex nature of the personal GOB itself. In this analysis, reiterating our previous discussion, GsBP are contextualized where two distinct GsAB or two distinct GsOB are not comparable with each other. Aside from its underlying nature, it is important to also acknowledge and focus on the

complexity of the personal GOB itself. How complex is the goal and, more importantly, in terms of accuracy, can a person successfully achieve such goal? This reflective question, from our point of view, emphasizes the *importance of congruence of accuracy*, *self-confidence*, *positive outlook*, and *optimism*. For example, in terms of schooling, it is unjust, illogical, and non-sensical to encourage a low-ability student to strive for scholarly distinction so that he could enter a medical program later on (i.e., GOB: "I want to strive for A and B grades so that I can enter medical school….").

From the preceding, we firmly believe that it would be a noteworthy endeavor to focus on one potential line of inquiry – namely, a person's point of reference in relation to their setting of a GOB or GsOB. This potential line of inquiry, we contend, emphasizes the interrelatedness between three major concepts: (i) level of complexity of a GOB, (ii) a person's state of personal resolve (Phan and Ngu, 2021c; Phan et al., 2017, 2019a), and (iii) a person's perceived sense of cognitive certainty or uncertainty (Phan and Ngu, 2021a; 2021e). In this section of the article, we explore and discuss in detail an interesting proposition: the *complexity* of a GOB (i.e., denoted along the Y axis in Figure 2) and the *continuous spectrum* of a person's state of personal resolve (i.e., denoted along the X axis in Figure 2). Furthermore, we denote 'T' as a threshold point, which may move along Line M.

### 4.3. The importance of accuracy: using personal resolve and cognitive certainty

In relation to Figure 2, we conceptualize that the cognitive complexity of a person's GOB (e.g., a 4th-year university student to strive for achievement of *cum laude* by the end of the year), as depicted along the Y axis would positively associate with their state of personal resolve, as shown along the X axis. Personal resolve, which emphasizes a heightened state of decisiveness and unwaivered, optimistic focus, would motivate a person to purposively act with the intent to succeed, regardless of any obstacles, difficulties, and/or hardships that may arise (Phan and Ngu, 2021c; Phan, Ngu, Shih, Lin, Shi and Wang, 2020c; Phan et al., 2018c). As such, personal resolve may also instill and/or encourage a perception of cognitive certainty that one is on course to succeed (Phan and Ngu, 2021a; 2021d). With this in mind, we speculate that:

- a student's personal resolve (e.g., a person is decisive and unwaivered in his focus) would closely associate with his self-belief and conviction of certainty of success.
- a student's weakened state of personal resolve (e.g., a person is indecisive and waivered in his focus) would closely associate with his self-belief of uncertainty of success.
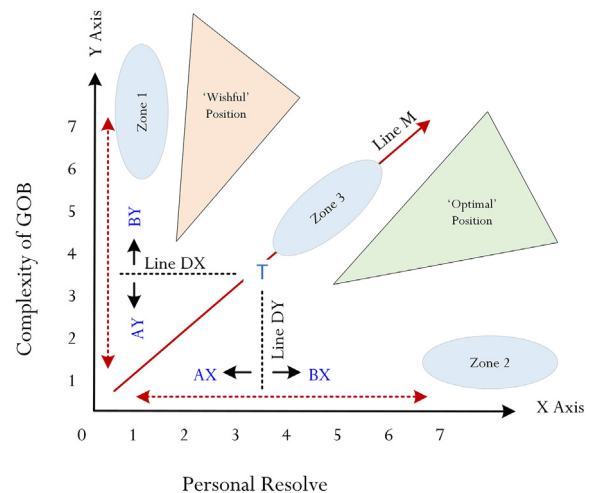


**Figure 2.** Relationship between certainty and uncertainty and complexity of GOB.

- a student's personal resolve would associate with and vary in accordance with the complexity of his GOB (i.e., the relationship between the Y axis and the X axis as shown in Figure 2).

From the above rationalization, we reason that: (i) as the student becomes more decisive and resolute (i.e., moving along the X axis where '6' depicts a high level of personal resolve and '1' depicts a low level of personal resolve), he is more likely to consider, anticipate, and/or set a specific GOB that is complex (i.e., moving along the Y axis where '6' depicts high complexity and '1' depicts low complexity), and (ii) as the student becomes less decisive and resolute (i.e., the X axis), he is less likely to consider, anticipate, and/or set a specific GOB that is complex in nature (i.e., the Y axis).

What else can we surmise and/or postulate? We posit that there is a *point of reference*, or 'threshold' (i.e., denoted as 'T'), which may demarcate between two experiences: 'positivity' and 'negativity'. This demarcation, denoted as Line DY in Figure 2, separates the perception of cognitive certainty (i.e., Arrow BX in Figure 2) from the perception of cognitive uncertainty (i.e., Arrow AX in Figure 2). There is also a demarcation, denoted as Line DX in Figure 2, which depicts the separation between the complexity of a GOB (i.e., Arrow BY) and the simplicity of a GOB (i.e., Arrow AY). Arising from the Line DY demarcation and the Line DY demarcation, we propose three major 'zones':

i. *Zone 1*, which associates with a high level of complexity of a GOB (e.g., Arrow BY moving up from Line DX) and a low level of a state of personal resolve (e.g., Arrow AX moving to the left of Line DY).
ii. *Zone 2*, which associates with a low level of complexity of a GOB (e.g., Arrow AY moving down from Line DX) and a high level of a state of personal resolve (e.g., Arrow BX moving to the right of Line DY).
iii. *Zone 3*, which associates with the threshold point along Line M (e.g., level of personal resolve corresponds with level of complexity of GOB).

The three zones closely correspond with two intertwined states or levels: the level of a student's personal resolve × the level of complexity of a student's GOB. Moreover, arising from these three zones, there are two contrasting 'positions' that may connote a number of educational and/or non-educational implications for consideration: (i) a 'wishful position', which reflects a high level of complexity of a GOB (e.g., value of 6 out of 7) and, in contrast, a modest level of personal resolve (e.g., value of 3–4 out of 7), and (ii) an 'optimal position', which reflects a modest to a high level of complexity of a GOB (e.g., value of 4½ – 5½ out of 7) and, likewise, a high level of personal resolve (e.g., value of 6 out of 7). In terms of comparison, we speculate that the 'optimal position' is more accurate, realistic, and attainable, reflecting a student's high level of motivation, personal resolve, self-confidence, and aspiration of intent to achieve $L_2$. A wishful position, in contrast, is optimistic but somewhat unrealistic and unattainable.

### 4.4. In summary

The preceding sections suggest that there are a few notable educational practices that are of significance and relevance for consideration. In terms of practicality, in general, it is a noteworthy feat to encourage students to have GsBP for accomplishment. Goals of best practice, as we discussed, are aspirational, reflecting students' motivation, optimistic thought, and/or positive look about life. "I aspire and want to strive for optimal best in…." is a personal phrase that is worth pursuing. Such aspiration of intent, in this analysis, may encourage and foster a student's state of personal resolve to succeed academically. Having said this, however, it is also an important focus to instill a sense of awareness of one's own capability and threshold – for example, am I capable? This mentioning, reflecting our earlier discussion, emphasizes the following:

- Recognition of the importance of complexity of a personal best goal (e.g., cognitive complexity of a GOB in Calculus).
- The importance of personal resolve, or a person's state of decisiveness and unwaivered focus, which may govern their perception of certainty of success or failure.
- The importance of accuracy in the anticipation, construction, and setting of GsBP for a specific subject matter. Inaccuracy (e.g., a low-ability student whose GOB is to attend medical school), for example, may result in a state of demotivation, academic disengagement, work avoidance, perceived feeling of pessimism, etc.

### 4.5. Methodological implications for consideration

A theoretical account of any concept and/or relationship between concepts in itself is somewhat limited, requiring validation via different means – for example, empirical data that involve quantitative and qualitative analyses, and scholarly discussions, which may entail philosophical reasoning, etc. for the purpose of refinement. Philosophical psychology, of course, is not without its pitfalls. One major limitation of our conceptualization is that there is no empirical evidence, at this stage, which may validate and help to support the nature of GsBP (Phan et al., 2022). Methodologically, in this case, we recommend the use of Likert-scale measures for the purpose of validation of the two goal types.

We recently developed a questionnaire, which we term as the *Goals of Best Practice Questionnaire* (GsBPQ) (Phan et al., 2022). The GsBPQ is a Likert-scale measure that we believe may measure and assess the underlying nature of GsBP. The GsBPQ, according to Phan et al., 2022, has two subscales: the *Goal of Actual Best Subscale* (i.e., denoted as 'GAB Subscale') with seven items and the *Goal of Optimal Best Subscale* (i.e., denoted as 'GOB Subscale') with seven items – for example:

i. The *GAB Subscale* (e.g., "My goal, at the present time, is to continue on with what I am doing"), as conceptualized, focuses on the setting of a personal goal, which emphasizes a person's plan of intent to remain on task with a particular course of action without attempt to maximize his/her learning experiences. A high score on this subscale (e.g., a score of 30 out of 35 with a 5-rating scale) would indicate a person's testament of conviction of his/her satisfaction with the experience of $L_1$.
ii. The *GOB Subscale* (e.g., "My goal is to achieve much more for this subject than what I have indicated so far"), as conceptualized, focuses on a person's plan of intent to strive to maximize his/her fullest potential. A high score on this subscale (e.g., a score of 30 out of 35 with a 5-rating scale) would indicate a person's testament of conviction to successfully achieve an optimal state.

How can we utilize the GsBPQ (Phan et al., 2022) in an effective manner? In terms of research development, which may utilize a quantitative methodological approach, there are a number of possible inquiries that are noteworthy for advancement – for example: (i) the factorial structures of the GsBPQ, (ii) the structural relationships between GsBP and other related concepts (e.g., the predictive effect of GAB on $L_1$), and (iii) the notion of academic profiling. These three sample inquiries, of course, may also involve the use of other Likert-scale measures, which then could provide evidence to clarify and/or to affirm the relationships between GsAB and GsOB and other psychological processes, achievement-related outcomes, etc.

### 4.6. Factorial structures of the GsBPQ

Firstly, researchers may use the GsBPQ, in tandem with the statistical techniques of *exploratory factor analysis* (EFA) and *confirmatory factor analysis* (CFA) (Byrne, 2012; Kline, 2011), to explore the factorial structure(s) of the concept of GsBP. Quantitatively, measuring and validating a theoretical concept (e.g., construct validity) is a noteworthy feat for development. Does a particular subscale (e.g., the GOB Subscale), for

example, measure what it is supposed to measure? On this basis, researchers may wish to undertake a concise correlational study, which seeks to explore different forms of factorial validity (e.g., construct validity). For example, as shown in Figure 3, we speculate that the GsBPQ would differentiate into a two first-order factor structure: $\xi_1$ and $\xi_2$, where $\xi_1$ = the GAB latent factor and $\xi_2$ = GOB the latent factor. By the same token, in accordance with our proposition, we expect to find a positive correlation between $\xi_1$ and $\xi_2$ (i.e., $r$ = +ve).

Having said this, however, it is plausible to also consider a one first-order factorial structure of the GsBPQ (Phan et al., 2022). This stipulation, in this instance, contends that the 7 items of the GAB Subscale and the 7 items of the GOB Subscale do not differentiate and that, perhaps, there may only be one personal goal type. Confirmatory factor analysis techniques (Byrne, 2012; Kline, 2011) are advantageous in providing opportunities to researchers to explore and test competing models – for example: a one first-order factor model of GsBP (i.e., the 14 items from the two subscales load onto one latent factor, $\xi$) *versus* a two first-order factor model of GsBP (i.e., the 14 items from the two subscales load onto two latent factors, $\xi_1$ and $\xi_2$.

### 4.7. Structural relationships

Secondly, similar to the factorial structure(s) of the GsBPQ (Phan et al., 2022), another inquiry is shown in Figure 4, which depicts the potential interrelations between three theoretical concepts: GAB and GOB (Phan et al., 2022), $L_1$ and $L_2$ (Fraillon, 2004; Phan et al., 2016, 2018c), and personal resolve (Phan, Ngu and Alrashidi, 2018a; Phan et al., 2019a). In this analysis, *structural equation modeling* (SEM) techniques (Byrne, 2012; Kline, 2011) may enable researchers to explore two interesting inquiries: (i) the potential association between GAB and $L_1$ (i.e., Path GAB) and between GOB and $L_2$ (i.e., Path GOB), and (ii) the mediating role of personal resolve in relation to GsBP and $L_1$ (e.g., Path A → Personal Resolve → Path C) and $L_2$ (e.g., Path B → Personal Resolve → Path D).

From the description, a correlational analysis of longitudinal data may have the advantage of identifying temporally-displaced effects and potential causal effects for further development (Marsh and Yeung, 1997; Rogosa, 1979). For example, in relation to Figure 4, a SEM analysis would help determine whether and/or to what extent GsBP at Time 1 (e.g., a GOB at Time 1) could indirectly influence $L_2$ at Time 3, via personal resolve at Time 2. In a similar vein, of course, our proposition also considers the potential mediating mechanism of personal resolve at Time 2

(e.g., a GAB at Time 1 → personal resolve at Time 2 (i.e., mediator) → $L_2$ at Time 3). It is of course possible and logically sound to also consider other psychological concepts that could function as mediators between GsBP and levels of best practice. One psychological construct, studied extensively in previous research, is *self-efficacy*, which is defined as "beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments" (Bandura, 1997, p. 3). Quantitative studies using latent variable modeling (Kline, 2011; Schumacker and Lomax, 2004) reported clear and consistent evidence (Diseth, 2011; Fast et al., 2010; Pajares and Johnson, 1996; You et al., 2016), highlighting the explanatory and mediating role of self-efficacy for academic learning. It would be of interest then, taking into consideration this established evidence, to explore the extent to which academic self-efficacy could mediate the contrasting effects of GsBP on the two levels of best practice (e.g., a GAB at Time 1 → self-efficacy at Time 2 (i.e., mediator) → $L_2$ at Time 3).

### 4.8. The importance of profiling

Thirdly, the GsBPQ (Phan et al., 2022) may be used to complement a recent research inquiry known as 'academic profiling' (Phan and Ngu, 2021b; Phan, Ngu, Wang, Shih, Shi and Lin, 2018b). Academic profiling, as the preceding sections have attested, emphasizes the importance of contrasting 'profiles' that a person may manifest (e.g., the Exceptional Profile) (Phan and Ngu, 2021b; Phan et al., 2018b). Research development into the notion of academic profiling (Phan et al., 2018b) has also associated with another concept, known as the 'consonance and disconsonance of best practice'. A consonance of best practice, for example, indicates that $L_2$ would 'cluster' or group together with psychological variables that are motivational and positive (e.g., optimism) (e.g., see Figure 5). Furthermore, as shown in Figure 5, a state of disconsonance would suggest a 'misalignment' between contrasting variables (e.g., successful experience of $L_2$ and anxiety).

We could adopt a similar approach and explore the 'academic profiling' of GsBP. Researchers could, in this sense, utilize the GsBPQ to assist with the identification of different 'zones' or 'profiles' of the following variables: GsBP, both $L_1$ and $L_2$ experiences, the different levels of personal resolve, and academic performance. For example, as shown in Figure 6, the use of *cluster analysis* techniques (Jain, 2010; Li and Wu, 2012; Likas et al., 2003; MacQueen, 1967) could enable us to explore and identify different 'zones of personal experience' that a person may experience – for example:

i. The 'optimal experience' zone: this zone reflects a state of consonance for a number of comparable variables – for example, high complexity of a GOB, high complexity of $L_2$, a high level of personal resolve, a high level of intrinsic motivation, and indication of personal striving.
ii. The 'wishful experience' zone: this zone indicates a state of disconsonance, whereby two comparable outcomes (e.g., high complexity of GOB, high complexity of $L_2$) are hypothesized to misalign (e.g., a low-modest level of personal resolve, a low-modest level of intrinsic motivation, and a modest level of anxiety).
iii. The 'sub-optimal experience' zone: this zone, similar to the optimal experience zone, reflects a state of consonance for a number of comparable variables – for example, low complexity of a GOB, low complexity of $L_1$, a low level of personal resolve, a low level of intrinsic motivation, indication of procrastination, and a high level of anxiety.

### 4.9. In summary

In summary, the use of Likert-scale measures such as the GsBPQ is advantageous and methodologically appropriate, enabling researchers to measure and assess the nature of GsBP. This quantitative methodological approach, in tandem with the use of complex statistical analyses (Kline,
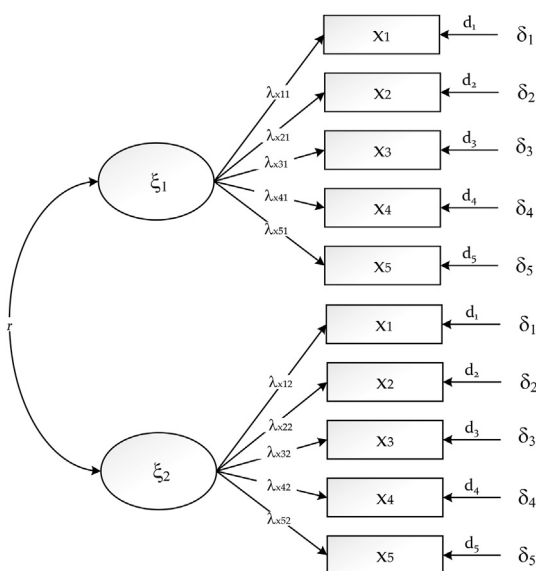


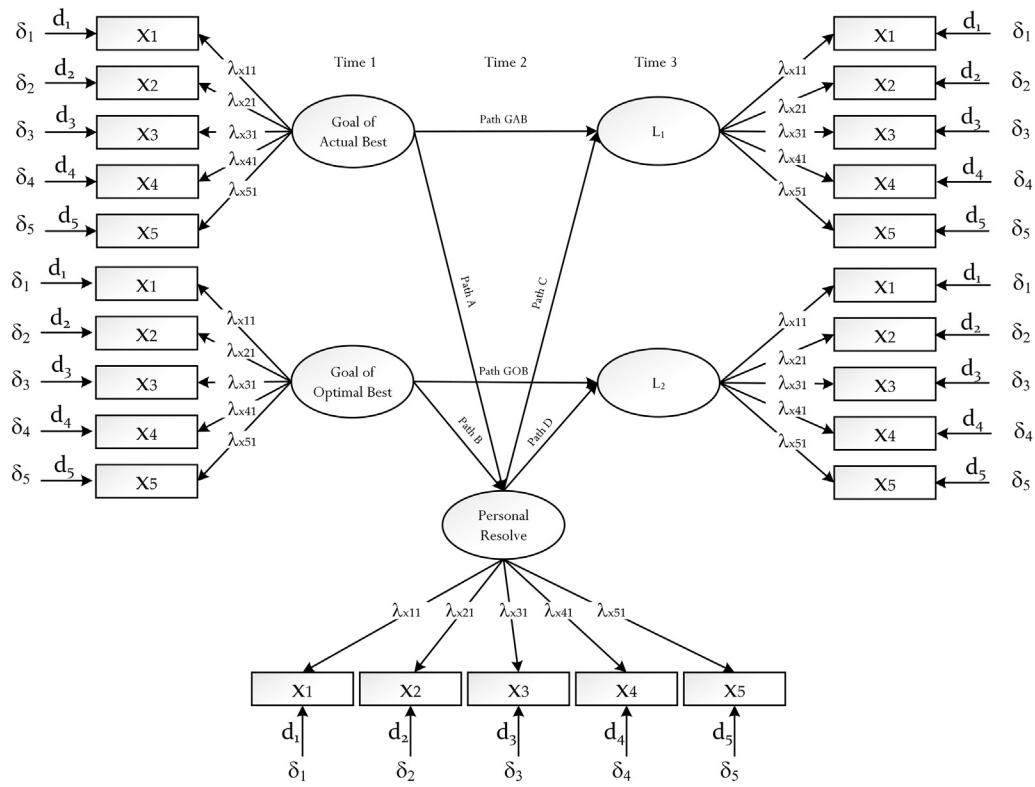**Figure 3.** A Proposed Two-Factorial Structure. Note: $\xi_1$ = optimal best and $\xi_2$ = goal of optimal best.

**Figure 4.** Relationships between GsBP, $L_1$, $L_2$, and personal resolve.
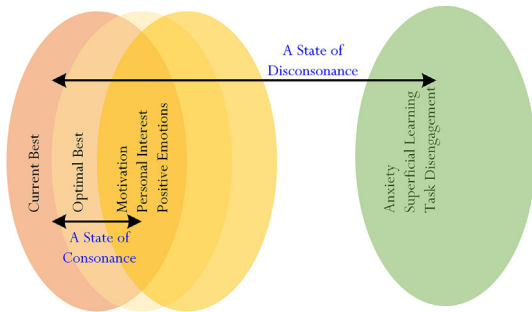


**Figure 5.** A state of consonance and state of disconsonance of best practice. Source: Phan and Ngu (2021b).

2011; Schumacker and Lomax, 2004), is robust and reliable, helping us to explore aspects such as the factorial structure(s) of the GsBPQ. By the same token, it is also plausible for us to consider other research-related inquiries for statistical examination – for example, the predictive validity of the two subscales of the GsBPQ (e.g., the positive effect of GAB on $L_1$). This overall insight, we contend, is clear and consistent and is in line with existing research studies of best practice, which utilize a quantitative approach (e.g., Liem et al., 2012; Martin and Liem, 2010; Phan et al., 2018c). Having said this, however, we acknowledge that our discussion into the operational nature of the GsBPQ is speculative as, to date, there is no empirical evidence to support such claims (e.g., that the GsBPQ would differentiate into two distinct factors).

In a similar vein, in terms of diverse methodological insights, it is possible that we could also consider other non-quantitative methodological approaches for usage. For example, is it valid and/or insightful to
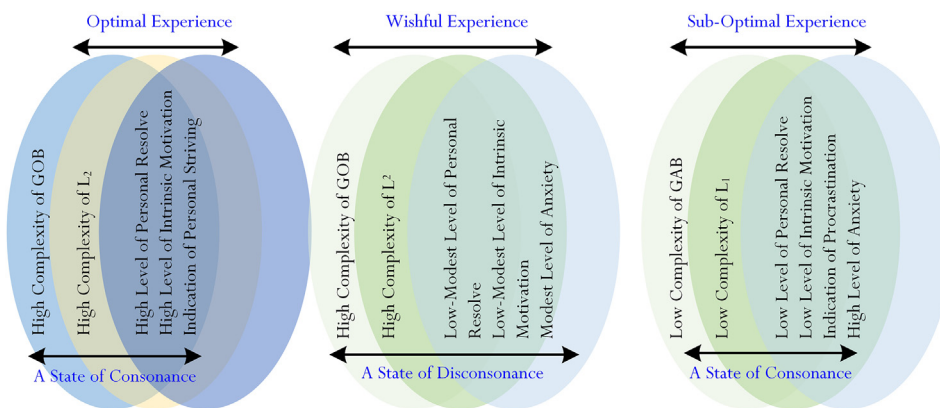


**Figure 6.** Proposition of optimal experience, wishful experience, and sub-optimal experience.

engage in *in situ* observations (Allen et al., 2013; Lofland et al., 2006) to gauge into a student's anticipation, construction, and/or setting of a specific GOB? Observations, although involving more resources, time, and effort, would provide and offer more enriching information for analysis. Aside from *in situ* observations, another methodological approach for usage could involve in-depth open-ended interviews (Esterberg, 2002; Merriam, 1998), which would provide detailed reflective and/or analytical accounts (e.g., personal reflection) of a person's choosing of a particular GBP for accomplishment.

## 5. Conclusion

Overall, then, the present conceptual analysis article is significant for its introduction of a theoretical concept known as goals of best practice, formally denoted as 'GsBP' (Phan et al., 2022). This theoretical concept may contribute and substantiate the study of levels of best practice (Fraillon, 2004; Phan et al., 2016, 2018c). Goals of best practice, as a recap, are personal goals that closely align with the experience and successful achievement of $L_1$ and $L_2$. In this sense, our proposed theory of GsBP is somewhat different from other personal goal theories (e.g., achievement goals) as our focus of intent, in this case, is to explain and/or to account for a person's experience of best practice. How does a first-year university achieve a successful state of $L_2$ in a specific subject area?

The study of GsBP has, to date, been philosophical, consisting of a proposed theory of two distinct goal types with a corresponding Likert-scale measure, the Goals of Best Practice Questionnaire, for usage. By all account, we contend that more research development, especially in terms of empirical validation is needed. Our examination of GsBP is seminal and offers both theoretical and methodological insights for potential advancement. Like any theory for that matter, the GsBP theory is likely to evolve with refinement and/or additional contributions in theoretical account and explanation.

## Declarations

### Author contribution statement

Huy P. Phan; Bing H. Ngu; Antonio Granero-Gallegos; Brenton P. Mensforth: All authors listed have significantly contributed to the development and the writing of this article.

### Data availability statement

No data was used for the research described in the article.

### Declaration of interests statement

The authors declare no conflict of interest.

### Additional information

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