THE "3-D" GUIDING FRAMEWORK: NECESSITATING MORE PERSONALIZED INVESTIGATION AND MEASUREMENT

Bridget Lim Suk Han

ABSTRACT

Each and every school was different in nature and has a life of its own which made up of different organic and mechanistic characteristics. Hence, if a school wanted to understand and subsequently helped learners learn better particularly in the English language, the contextualized factors around the teaching and learning of that language should be clearly established first for a school. That included the environment surrounding the school. This paper put forth an anecdote of an educational leader who travelled a distance to a low performing rural primary school in Sabah. This educational leader, who was the researcher in this study, had to go through varied huddles in order to gain access and trust of the school community she was visiting. Various ethical issues needed to address. Peripheral observations, interviews in the forms of casual conversations as well as document analysis were conducted for the educational leader to gain valuable insights for her to establish a "3-D" Guiding Framework equipped with three different dimensions so that more in-depth and holistic investigations could be conducted thereafter. To ensure more holistic measurement of the constructs for each of the dimensions under the Guiding Framework, this framework was cocooned within the five measurement indicators namely frequency, focus, stage, differentiation and quality. With the use of the Guiding Framework in the form of instruments, they had enabled the case school to precisely identify its capabilities and capacities particularly in terms of its happenings and reasons behind these happenings. With such definite findings, the case school understood 'what', 'how' and 'why' it was doing relative poorly in the English language so that more relevant and feasible suggestions could be proposed. The suggestions put forth to the case school were cost efficient, time effective and energy effective but most of all based on the findings.

Key words: contextualized factors, guiding framework, personalized investigations and measurement, customized suggestions

INTRODUCTION

Each and every school was different in nature. Raven, Johnstone, and Varley (1985) made their point when describing their work which crossed subject boundaries. There were many skills and qualities which were important parts of educational processes that could subsequently contribute to the academic performance of the pupils. A school has a life of its own which made up of different organic and mechanistic characteristics such as the administrative and leadership's make-up, educational programme management structure and student composition. Scientifically, it was referred to as the meta-system of a school. All this structures and processes must be finely tuned or complementary to each other for the school to be productive, viable and operational. Hence, if a school wanted to understand and subsequently helped the pupils learn better particularly in the English language, the contextualized factors and how and why they were connected should be clearly established around the teaching and learning of the language for the case school so that the findings could provide an in-depth information vis-à-vis the performance of a low performing school in the language.

OBJECTIVE OF THIS PAPER

This paper was emancipated from a larger ethnographic fieldwork case study conducted at one of the low performing primary schools in Sabah. The educational leader (**the researcher** in this paper) had the opportunity to submerge in the "lived" experience and learn the life of a school community which was away from the hustle and bustle of the city life. The process of investigating the school in this nature was truly challenging but fulfilling. It gave the researcher who was an outsider a sense of belonging and concern for the happenings at the school. With the frequent visits within a considerably long duration of time, the subjects had the chance to stay better connected to the researcher and this rendered better interaction and trust for more "in-depth" understanding and "thick description" of the issues emerging at the school.

As disclosed by Creemers and Kyriakides (2009), longitudinal study in dynamic investigation of multilevel effects of factors affecting the teaching and learning processes was lacking. Henceforth, the main objective of the paper was to delineate and describe the establishment of a "3-D" Guiding Framework that was tailored to suit the research environment of the case school. In order to make the Guiding Framework multidimensional in nature, the framework was cocooned within the five measurement indicators namely *frequency, focus, stage, differentiation* and *quality* which were popularized by Creemers and Kyriakides (2008). These dimensions facilitated me to scrutinise my variables from various perspectives so that "a better picture of what makes teachers and schools effective" (p. 83) or even ineffective could be drawn in order to help the school particularly to develop more specific strategies for improvement. The framework not only concerned with processes that occur within the classrooms but also took into consideration school-wide factors as well as contextual influences of the environment outside the school. It was hoped that the contextualised data gathered and analysed through this "3-D" Guiding Framework could subsequently assist all the relevant stakeholders involved to carry out more relevant and appropriate data collection process in order to formulate more objective solutions that could help improve the English language proficiency of the learners of their respective school.

THEORETOCAL AND CONCEPTUAL BASIS OF THE FRAMEWORK

This framework was generally formulated based on the organisational theories and theories of learning which integrated the findings of school effectiveness and teacher effectiveness research and the early input-output studies (Creemers, n.d.). The fundamental basis of this framework was adapted from the main structures of the Dynamic Model of Educational Effectiveness by Creemers and Kyriakides (2008). It was multilevel in its structure "where the school is nested in contexts, classrooms are nested in schools, and students are nested in classrooms and teachers" (Kyriakides, 2005, p. 104). Creemers (1994) rationalised that the higher levels were conditional for the lower levels. As Kyriakides, Campbell, and Gagatsis (2000) put it, "the factors at the context level should be seen as conditional for the factors at the school level, factors at the school level as conditional for factors at the classroom level and factors at the classroom level as conditional for pupil achievement" (p. 504). All these variables at different levels, in accordance with Creemers (as cited in Kyriakides, Campbell, & Gagatsis, 2000) should support each other in order to improve pupils' performance.

According to the Kyriakides, Creemers, Antoniou and Demetriou (2010), "effective schools are expected to make decisions on maximizing the use of teaching time and learning opportunity offered to their students" and "support teachers in their attempts to help students learn by using effective teaching practices" (p. 812). For schools to develop effectively, they should develop policies and take actions to improve both teaching practices (effectiveness factors) and the school learning environment (climate factors) (p. 807).

English was basically one of the subjects taught in primary schools. As with other subjects, the teaching and learning of English in primary schools was carried out within the context of a school and classroom. Hence, by researching on the climate settings and the practices within these settings which was the purpose of this study, it helped to put to light what the factors and the relationship of these factors affect the teaching and learning processes of English among the pupils. According to Teddlie (1994), the areas of school effectiveness and teacher effectiveness in classroom had been examined separately where the teacher effectiveness studies were concentrated on the processes occurred within the classroom to the exclusion of school level factors. Hence, conducting a study on a school using a multilevel framework helped to illustrate the interrelationship between the school and teacher/classroom effectiveness on English language teaching and learning.

Therefore, with the theoretical basis originated from the main structures of the Dynamic Model of Educational Effectiveness and the knowledge that the development of both climate and effectiveness factors in creating an effective school, they provided the fundamental platform for the researcher to establish the "3-D" Guiding Framework that necessitated more personalised investigation to help improve learners learning outcomes especially in the English language.

THE CASE SCHOOL

The case school was located at one of the local communities of District A, about 130km away from a nearest urban centre, in the state of Sabah. District A was a remote area where the projection of the foot of Mount Kinabalu was extended to. Rural schools in Sabah were categorised based on their locations such as island, riverside and foothill. Hence, the schools in District A were generally foothill schools. The district covered a land area of 1,385.6 square kilometre.

According to the statistics provided by Educational Planning and Research Division, in January 2009, there were 1069 primary schools in Sabah and 519 of them or rather 50% of all the primary schools in Sabah were Low Enrolment Schools (*Sekolah Kurang Murid – SKM)*. The case school was one of them. Low Enrolment School was defined as a school with less than 150 pupils. It was costly to build schools especially if the rate of use was low. Recognising that public education was the only form of education available to these rustic folks, the government still built schools in areas where the population was low. According to Bray's (1987), it was important for every community to have its own school.

RESEARCH METHODOLOGY

Three major data collection techniques were employed in this study – observation, interview and document analysis.

Data Collection

For observation, participant observation was one of the primary data collection techniques used in the researcher's study. The researcher's role as an observer in this study was located somewhere at midpoint close to the role as observer-as-participant. This helped the researcher to strike a balance between involvement and detachment, closeness and distance, familiarity and strangeness (Cohen, Manion & Morrison, 2000) so that the researcher was able to collect the data needed for her study but as the same time her presence at the field would not cause any threat and intimidation to all the members at the field which was a rural primary school in particular. At the beginning of the researcher's field visits, her observations were less structured. With the help of prompts using who, what, where, when, how and why in guiding her observations, details of the setting, who the characters were, events, happenings, actions, activities were noted.

For the interview processes, they were more open-ended and less structured. Semi-structured interview was the preferred option which lied in the middle between structured and unstructured. This was because it allowed the researcher to gauge the participants' point of views and at the same time being objective about her research focus. Practically, the interview sessions in

this study involved the Head Teacher, English teachers and pupils. For the English teachers, the concentration was on the interview sessions especially after classroom observations.

According to Southworth and Conner (1999, p. 53), "interview following a classroom observation is fundamentally important for the observer to check that the assumptions and interpretations he or she has made are justifiable". The researcher also utilised the conversational interview. In accordance with Conner (1991), this technique was effective and appropriate in school-based enquiries to complement and even counteract the formal stance of interview because it could be conducted in more relaxed manner with the participants. In this way, the teachers at the case school were able to provide insights about the school which might be difficult or impossible to express in more public and formal environment.

Since pupils were the ultimate clients of all school effectiveness programmes, they were important source of information for the improvement of school practices. The approach in undertaking the discussion with the pupils at this case school was conducted informally and in groups. According to Lewis (1992), group interview with children gauged consensus views of classroom behaviour that affected the children collectively in the classroom. This strategy helped the researcher to generate richer responses by allowing pupils to challenge each other's opinions that could be used to triangulate data gathered through other research instruments and thus increased the reliability of the information base of this study.

As for document analysis, they were mostly derived from within this case school as well as official documents in relation to school practices and the implementation of education policies. Document analysis was done concurrently with the other data gathering instruments. The researcher's first step in commencing this stage was finding documents within the case school. The school was likened to a library and document analysis was the process of carrying out the researcher's literature review to support the case or research focus. The researcher tracked down documents which could be used not only as secondary data sources to triangulate with other data but also as part of the research process to help in "inductively building categories and theoretical constructs" of some pertinent issues related to the study.

Data Analysis

The data analysis processes of this study involved **data management**, which entailed organisation and keeping track of the many messy records (Bazeley, 2007, p. 2), **data reduction**, where data gathered was systematically sorted out into specific and manageable 'stacks' and brought together in a database, and after that **data coding** and **memoing**, which helped tying together different pieces of data, even codes into identifiable patterns. With the detailed scrutiny and analysis of all the data collected through the identification of patterns, issues and even dilemmas, the very concepts and dimensions unique to the case were established. This subsequently contributed to the formulation of the "3-D" Guiding Framework that rendered optimal fit to the research context of the case school.

Data collected through observations, interviews and documents were *decontextualized* and *recontextualized.* The decontextualization process involved reducing the bulk of data through coding and triangulation according to the four main domains – school climate, classroom climate, school effectiveness and classroom effectiveness. The climate factors were refined, based on four general aspects – physical environment, social relationship/system, orderliness and expectations on student outcomes (and teacher behaviours).

As for the effectiveness factors, the raw data were furthered scrutinised based on the aspects of quality (of instruction), time and opportunity. According to Creemers (1994), the classroom effectiveness factors on quality which were directly related to pupil achievement, influence the time on task and opportunity to learn among the pupils. In order to ensure more meaningful and profound decontextualization of data on the effectiveness factors in relation to the teaching and learning of the English language, the indicators of the Sheltered Instruction (SI) approach, initiated by Echevarria, Vogt and Short (2004), were incorporated as well.

The decontextualization process which was conducted layer by layer, was crucial in teasing pertinent knowledge claims out of the raw data. This had facilitated the recontextualization of the raw data to reach the main findings. These findings were the main ingredients in churning out the capacity and capability of the case school under investigation.


FORMULATION OF THE "3-D" GUIDING FRAMEWORK

The findings of this study revealed that there were a number of crucial factors that needed further scrutiny and investigation at the three different levels, namely Context, School and Classroom levels, of this "3-D" Guiding Framework.

The analysis of the data gathered during the preliminary study pointed towards the four main domains that were affecting the effectiveness of the teaching and learning processes particularly for the English subject which aligned with the School Effectiveness Plan for Teaching and Learning of English (as shown in *Figure 1*) by Creemers and Reezigt (1999). The establishment of the initial guiding concepts was supported using the documenting activity referred to as "Census, Map and Calender" by Purcell-Gates (2004). During this activity, details of the setting, who the characters were, events done and undone as well as event sequences were noted.

The Census, Map and Calender procedures helped the researcher in constructing the **first** dimension of the Guiding Framework. Apart from structuring and guiding the procedures of data collection to avoid "data overloading", the conceptual framework

provided points of reference to start data analysis and entail more systematic and organized analysis of data collected from various sources (Miles & Huberman, 1994).

Figure 1: School Effectiveness Plan for Teaching and Learning of English
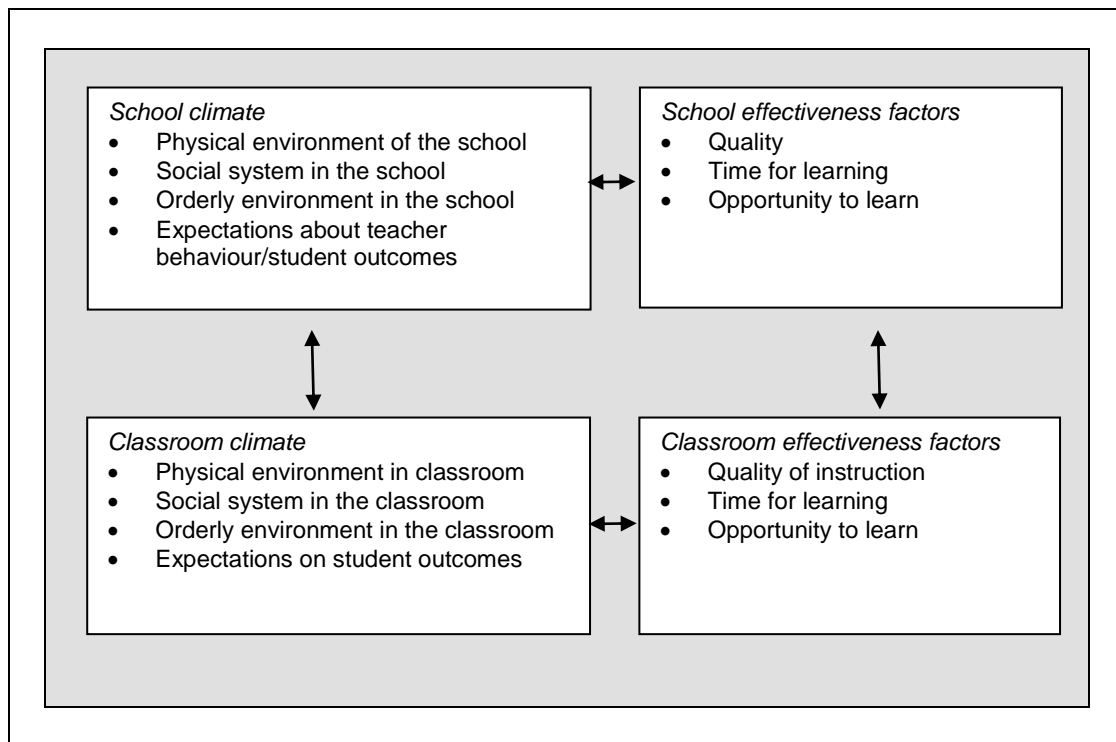
Adapted from "The role of School and Classroom Climate in Elementary School Learning Environment" by B. P. M. Creemers, & G. J. Reezigt, 1999, in H. J. Freiberg (ed.), School Climate: Measuring, Improving and Sustaining Healthy Learning Environments, p. 31

The factors encircling the school and classroom levels were the foci. School and classroom settings were where the pupils started "creating ideas, making discoveries, exchanging views and rehearsing ways to interact in a large social context" (Robles de Melendez & Beck, 2007, p.337) which was different from what they are experiencing at home. Therefore, it would be more practical particularly when the pupils were not performing well, to scrutinise what had and had not done at school and classroom levels first before investigating how the pupils learned. What good it was to investigate how pupils learned when the school and classroom were not conducive for the pupils to learn in.

The **second** dimension involved the teasing of the pertinent issues in relation to both the climate and effectiveness factors at the school and classroom levels. Through the decontextualized process of the data collected, the researcher managed to compartmentalize and elicited the detailed expansion of the **first** dimension. The **second** dimension comprised of various aspects or variables related to the four domains (as shown in *Figure 2*) which were associated to the essences occasioned from the case school.

This decontextualized process of the researcher's raw data from observations, interviews and documents had subsequently delineated a comprehensive set of factors that created the **second** dimension of the framework. The list might seem to be quite extensive but the extensiveness of the list help especially novice educational leaders to establish guidelines/signposts in initiating improvement programmes for their school, teachers and pupils.

In relation to the *Figure 2*, the Context level which constituted the **third** dimension of this framework, was generally referring to the *environmental influences*, *cultural setting*, *historical establishment* as well as *life expectation* where the school was located. It was too an important contributor to the effectiveness of the teaching and learning processes for the pupils. The discovery and inclusion of this layer came unexpectedly to the researcher when she entered the site for data collection process. Running through the archived materials of the town where the school was situated gave an early impression on how crucial education in general and the learning of English were to the people of that area. Even the cosiness the surroundings might have deterred the urgency to accomplish any job assignment provided.

Based on an article written by J. E. Longfield who was the district officer then in 1952, he described the district,

> …is without doubt the most beautiful district in the country, its great rolling plains, its beautiful big clear swift-flowing rivers, and its ring of mountains rising to that great and magnificent peak – Kinabalu. Then its inhabitants – a varied, but happy, free and sporting people, whom all who come in contact with love…
> (Kinabalu Magazine, 1952, p. 21, sourced from Arkib Negeri Sabah)

The researcher was too inflicted with its tranquillity every time she visited the school. The researcher was eager to submerge in the serenity blanketing the surroundings there. It just made her feel so lazy to work but to relax and enjoy inhaling its breezy and refreshing fresh air on my way to school and seeing the paddy yellowing and heavy at the tips waiting to be harvested. This environmental factor greatly affected the researcher's eagerness to keep working. If the researcher could feel such effect every time she was there, it too would affect the people working there including the parents, teachers and pupils living there.

The Context level (**third** dimension) was established as a layer around the **first** and **second** dimensions (shown in *Figure 2*) as the happenings of school was cocooned within various settings of the area. How to manipulate the setting to motivate the pupils to learn better required the innovativeness and creativity of the school in general.

Table 2: "3-D" Guiding Framework

THIRD DIMENSION		
• Environmental influences • Cultural setting and practices	• Historical establishment • Life expectation	

FIRST DIMENSION		SECOND DIMENSION
Domain	Factor	Aspect/Variable
School Climate	Physical Environment of the School	• Physical and Object Resources • Human Resources • Financial Resources
School Climate	Social Environment of the School	• Collaboration among Teachers as well as with Head Teacher • Collaboration between the School and Community
School Climate	Orderly Environment of the School	• Physical Orderliness • Behaviour Orderliness • Emotional Orderliness
School Climate	Expectations of Teacher Behaviour and Pupil Performance	• Expectations of Teacher Behaviour • Expectations of Student Performance
Classroom Climate	Physical Environment in the Classroom	• Basic Physical Resources • Physical Arrangement • Conducive Classroom
Classroom Climate	Social Environment in the Classroom	• Teacher-Pupil Interaction • Pupil-Pupil Interaction
Classroom Climate	Orderly Environment in the Classroom	• Classroom Orderliness • Teacher's Treatment of Pupils
Classroom Climate	Expectations about Pupil Performance	• Community Perspective • Teacher Expectation on the Pupils • Pupils' Self-Expectation and Preference • Competition between Pupil
School Effectiveness	Time Provided for Teaching and Learning	• Handling Management of Time (Unattended Classes Punctuality) • Handling Lesson Schedule and Time Table (Replacement, extra and Tuition Classes) • Handling of Absenteeism of Teachers and Pupils • Handling Homework
School Effectiveness	Opportunity Provided for Teaching and Learning	• Handling and Supporting Implementation of Curriculum • Handling Learning Support for Pupils with Learning Difficulty • Handling Extra-Curricular Activities
School Effectiveness	Improvement on Teacher Instructional Behaviour	• Professional Development and Help • Evaluation Process
Classroom Effectiveness	Quality of Orientation	• Lesson Planning • Supplementary and Support Materials • Textbook-based Activities • Adaptation of Teaching Contexts • Adaptation of Language Content
Classroom Effectiveness	Quality on Structuring of Teaching Instruction	• Background Knowledge and Teaching Contexts • Lesson Delivery (Teachers' Discoveries, Beliefs and Attitudes as well as Teaching the skills related to the subject) • Comprehensible Input (Teachers' Directives, Teaching Creativity, Voice Projection and Lesson Pacing)
Classroom Effectiveness	Quality on Teaching Modelling	• Opportunity provided to develop learning strategies among pupils
Classroom Effectiveness	Quality of Questioning Techniques	• Exposure and handling of different types of questions
Classroom Effectiveness	Quality on Application Tasks and Monitoring	• Emphasis on Accomplishment of Tasks • Work Activities • Monitoring and Guidance of Task Given
Classroom Effectiveness	Quality on Classroom Assessment	• Monthly Assessment • In-class Tasks and Feedback

INTEGRATION OF MEASUREMENT TO THE "3-D" GUIDING FRAMEWORK

Measurement in educational effectiveness has always been an issue as the constructs or factors involved were always treated as unidimensional. Through the analysis of the data collected on site, it was discovered that the problems arisen from the case school were multidimensional in nature. In other words, the issues that were affecting the educational effectiveness of the school needed to be dealt with from different perspectives so that more profound and appropriate solutions could be initiated to counter the ineffectiveness encountered.

The multidimensional perspectives of the problems found in this case school matched the five measurement dimensions namely *frequency*, *focus*, *stage*, *differentiation* and *quality* which were popularized by Creemers and Kyriakides (2008). These dimensions facilitated the researcher to scrutinise her variables from the three dimensions (as indicated in *Figure 2*) so that "a better picture of what makes teachers and schools effective" (p. 83) or even ineffective could be drawn in order to help the school particularly to develop more specific strategies for improving the phenomena under the researcher's investigation.

Table 1 below put forth the general operational definitions of the five measurement dimensions integrated throughout the "3-D" Guiding Framework when the framework was used to investigate the educational effectiveness of this case school.

Table 1: General Operational Definitions of the Five Measurement Dimensions

Dimension	Operational Definition
Frequency	Refers to the *quantity* that an activity associated with an effectiveness factor is present in a system, school or classroom
Focus	Reveals the function of the factor at classroom, school and system. The following two aspects of focus of each factor are measured: • Specificity; • The number of purposes for which an activity takes place.
Stage	Refers to the period at which they take place. It is assumed that the factors need to take place over a long period of time to ensure that they have a continuous direct or indirect effect on student learning.
Differentiation	Refers to the extent to which activities associated with a factor are implemented in the same way for all the subjects involved with it.
Quality	Refers to the properties of the specific factor itself, as these are discussed in the literature.

(Taken from "The Dynamics of Educational Effectiveness: A contribution to policy, practice and theory in contemporary schools" by B. P. M. Creemers, & L. Kyriakides, 2008, p. 84.)

SIGNIFICANT OUTCOMES AND CONCLUSION

In fact, the process of reaching the outcomes mattered more than the outcomes themselves. This was because without the right process, the appropriate outcomes could not be reached! According to Creemer (2002), most studies reviewed on educational effectiveness were concerned with the establishment of statistical relationships between variables rather than the generation and testing of theories to explain the relationships of factors that contributed to the establishment of strategies for improving educational effectiveness (ibid, p. 3). Henceforth, this Guiding Framework integrating the five measurement dimensions had facilitated the formulation of four instruments which were pertinent in identifying the teaching and learning processes to be improved on at the case school. They were not only integrating the concepts of the Guiding Framework with the clear indicators of the aspects to be investigated but also the five measurement dimensions namely **frequency**, **focus**, **stage**, **differentiation** and **quality** (popularized by Creemers and Kyriakides, 2008).

The friendlier part of these instruments was that the concepts involved were generic in nature. Therefore, they could be applied across all subjects in schools. They also allowed more "bottom-up" initiatives to be put forth as the evidence gathered were empirically driven and grounded in nature. This was surely a plus point for the relevant authorities to obtain substantial evidence to plan programmes that could provide better impact on schools' future improvement.

With the use of the Guiding Framework in the form of instruments, they had enabled the case school to precisely identify its capabilities in terms of physical, human/interactional as well as programme settings. They also opened up the opportunity for the school to pinpoint its financial, object/physical, time, human and programme capacities. With such definite findings, the case school understood 'what', 'how' and 'why' it was doing relative poorly in the English language so that more relevant and feasible suggestions could be proposed. There was no point suggesting additional programmes which could be seen as too far-fetched and deemed impossible to be carried out in a small school with limited entity, human energy and financial resources. Hence, the suggestions put forth were cost efficient, time effective and energy effective but most of all based on the findings.

As rationalized by Creemers and Kyriakides (2008), "[e]ducational effectiveness research (EER) does not attempt to invent new ideas or programmes; rather, it aims to concentrate on understanding the lessons to be drawn from existing practices" (p.3). In the case of the formulation of this "3-D" Guiding Framework, the fundamental concepts that constructed the framework were sourced from a concoction of various theories, models and even approaches that matched the specification of the case school specifically in relation to the teaching and learning of the English language.

According to Slater's and Teddlie's (as cited in Creemers & Kyriakides, 2009) arguments, effective schools and/or teachers were expected to change in order to remain effective as their contexts change; they must adapt their schooling to the changing context (p. 293). How much the phenomena happening outside the classroom should be manipulated as well as integrated in the teaching and learning processes particularly in the English language, was under the jurisdiction of the school leaders and teachers to ensure better learning outcomes among the learners. The formulation of this Guiding Framework should not be viewed as a one-off framework but a guidepost for any researchers and even school leaders and educators to initiate more on-going and in-depth exploration to make the framework more pertinent at their respective educational institution.

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Dr. Bridget Lim Suk Han
Assessment and Evaluation Department
Institut Aminuddin Baki Cawangan Sabah,
88450 Kota Kinabalu, Malaysia
Email: bfuture156@gmail.com