Effect of Teacher Mentoring Programme in Malaysia on Improving Teachers' Self-Efficacy

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ABSTRACT

Through a Teacher Mentoring programme in Malaysia, a group of twenty one teachers from Muar, Johor participated in a three-month action research study answering the question, "What is the effect of a teacher mentoring programme on improving teachers' self-efficacy and achievement in the use of strategies to actively engage their students?" A one-group pre- and post-test design was used to measure their self-efficacy (Lyne Mentor Scale) and achievement (Observation form). The sample was one of convenience, as all participants attended the same Teacher Professional Development workshops (TPDs). The results of this study seem to indicate that both the teachers' self-efficacy and achievement improved.

KEYWORDS: Efficacy, Self-efficacy, Mentoring, TELL, TPD, KSSR

Introduction

In 2011, the Malaysian government introduced a new child-centred standard curriculum and teaching methodology called *Kurikulum Standard Sekolah Rendah* (KSSR). In addition, to assist in the implementation of the new standards, in 2011 the government also introduced the Teaching English Language and Literacy programme (TELL) in which experienced native English language teachers were brought over to Mentor the Malaysian teachers.
I am working with The Brighton Education Group and Nord Anglia on the TELL programme in Muar, Johor Malaysia as a Mentor to approximately 70 Malaysian teachers. This programme involves 600 schools in six states with 120 Mentors in a coordinated fashion and it is to last for 3 years.

The aim of KSSR is to change the current climate of teacher-centred, passive education to one of student-centred, active education in which the content is delivered through games and activities. Through Teacher Professional Development workshops (TPDs), strategy sessions, ESL lessons and meetings, we hope to implement KSSR.

Having taught ESL in South East Asia for over 10 years, I have been involved in several curriculum changes in a number of schools and without exception they all failed to be implemented properly. The focus was always lost or the support from the government was not there. The TELL project is quite different because Mentors aid in the implementation. This study is a practitioner-action-research approach attempting to find out if the programme is working.

Review of literature

The concept of mentoring is not a new one. Its origins can be seen as far back as Greek mythology. The general definition of a Mentor is "a wise older helper of the young." They are people to be looked up to and who have a close connection with the ones they are mentoring, the 'Mentees'. Thus, it can be said that "Mentors are advisers, educators, counsellors and role models who pass their experience on to less experienced people" (Mohono-Mahlatsi & Tonder, 2006, p. 386). From the viewpoint of the teaching profession, mentors are denoted as experienced educators who actively assist less skilled educators to achieve expected abilities and experience (Donaldson, 2008; Mohono-Mahlatsi & Tonder, 2006). Current research indicates that mentoring is an effective solution for teacher retention problems and helping newly-qualified teachers increase their confidence, ability and development as educators (Donaldson, 2008; Hudson & Sempowicz, 2011; Mohono-Mahlatsi & Tonder, 2006; Feiman-Nemser, 1996, 2001; Baldauf & Nguyen, 2010; Hudson, Savran-Gencer, & Uşak, 2010).

Contemporary use of mentoring finds its roots in the early 1980s when there was a broad movement to enhance education (Feiman-Nemser, 1996). The 'enhancement' has caused the whole teaching paradigm to be slowly shifted over the last several decades from one of teacher-centred learning to a student-centred approach that involves active learning. Well known theorists such as Lev Vygotsky, John Dewey, and Jean Piaget, whose work collectively focused on the way in which students learn, can be said to be the main reason for the move to a student-centred constructivist approach to learning (Huitt & Lutz, 2004). This philosophical and pedagogical change was no small feat. Any kind of change or reform of this nature involving millions of people requires all stakeholders to be involved from the

politicians to the principals, teachers, school staff, parents and community. Fundamental change of this kind includes other types of adaptation to occur as well. According to Buttram, Hoover and Hord (2000, p. 4):

> It involves more than just deciding to implement a reform model or changing the curriculum. It may mean changing organizational and physical structures. Even more difficult, it may mean changing the school's culture to provide a supportive atmosphere where trust is pervasive and leadership is shared; a collegial culture where teachers are free to discuss problems and practice, and where continuous learning among the staff is valued.

In the United States, recent research has shown that, as more and more schools take on the new wave of pedagogical change, in many cases, if teachers are not given enough support they will either not implement the new policy or simply quit their job and move to another profession: "If the realities or problems of beginning teachers are not dealt with constructively and if new teachers are insufficiently supported personally and professionally, it is unlikely that the outcomes of their initial professional practice will be predominantly positive" (Baldauf & Nguyen, 2010, p. 41).

From the classroom perspective then, teachers need some kind of assistance to guarantee that such a widespread and all-encompassing change actually takes place. One solution is when a co-teaching environment with a Mentor is developed where the teacher's own teaching site issued for learning allows Mentor and Mentee to work closely together. In this way, any immediate problems can be quickly resolved and the long term focus remains. This specific type of mentoring follows the same idea of 'educative mentoring' described by Feiman-Nemser in which the day-to-day needs of the mentee are met while still focusing on the overall long-term goals that are being implemented (Bradbury, 2010). In cases that involve cultural and religious differences between mentors and mentees, an 'educative mentoring' approach is necessary in order to limit culture shock and build trust. The goal is to help novices develop practical and usable strategies grounded in research-based understandings. Novices can apply theoretically-based knowledge of how people learn and have those ideas supported by first-hand experience. Hence, for change to occur while remaining sensitive to the people involved, constant support and guidance is required, which means mentors are a necessity in order for any kind of implementation of new policy to be sustained. Mentors reduce feelings of 'professional seclusion' by giving constant feedback and ideas to solve problems. Through the mentoring process, the 'mentee' gains confidence which is vital to the proper delivery of any new curriculum or policy change (Mohono-Mahlatsi & Tonder, 2006). The new paradigm of using mentors is relatively well accepted in the West. Early-career teachers report that effective mentoring has minimized feelings of segregation, improved self-reliance and self-image, and not only increased professional development, but also improved self-reflection, and critical thinking ability (Hudson et al., 2010).

The improvement in teacher self-confidence, self-reflection, self-esteem and professional development is ultimately what I attempted to measure with regards to specific teaching strategies that are required for the KSSR to be properly implemented. Also, in order for the new curriculum to stay effective, teachers have to understand the importance of using KSSR strategies and use them frequently in the classroom. This then could be termed as measuring, in a limited way, teacher self-efficacy.

Teacher efficacy has been investigated in numerous studies and has recently been defined as:

> … a simple idea with significant implications. A teacher's efficacy belief is a judgment of his or her capabilities to bring about desired outcomes of student engagement and learning, even

> among those students who may be difficult or unmotivated. This judgment has powerful effects" (Hoy-Woolfolk & Tschannen-Moran, 2001, p.783).

Teacher efficacy originally came from a lengthy study containing within it two questions about how teachers felt about their ability to teach. The two questions were termed "teacher efficacy" by the researchers and became one of the most important aspects of teaching theory showing the relationship between student learning and teacher characteristics (Armor et al., 1976). Efficacy was defined as "the amount to which teachers thought they had control over reinforcement of student learning" and also as "the extent to which the outside environment had control." One side felt that a teacher can affect student achievement by personally controlling the learning environment (labelled "personal teacher efficacy," PTE, or "self-efficacy"). The other side felt that a teacher has no control over how much a student learns and it is the external environment that affects student performance (labelled "general teacher efficacy" or GTE) (Hoy-Woolfolk & Tschannen-Moran, 2001). Other studies confirmed a strong co-relation between teachers' beliefs in their own capabilities and student success rates and project goals achieved. Eventually, this led other researchers to come up with new instruments for measuring teacher efficacy. Through a series of evenly numbered questions concerning both sides of the concept (PTE and GTE), the questions would be added up and the total Teacher Efficacy (TE) would then be calculated (Hoy-Woolfolk & Tschannen-Moran, 2001). Over the last 30 to 40 years, many possible teacher efficacy scales asking various questions have been studied, such as the Ashton, Buhr and Crocker's Series of Vignettes (1984), Bandura's Instrument Teacher Self-efficacy Scale (undated), Gibson and Dembo's Teacher Efficacy Scale (1984), Gusky and Passaro's Teacher Efficacy Scale (1994), and the Hoy & Tschannen-Moran Teacher Efficacy Scale (2001), to name a few (cited in Hoy-Woolfolk & Tschannen-Moran, 2001).

For the purposes of the intervention, I only wanted to focus on PTE or Teacher self-efficacy in order to calculate if in fact each Mentee was using what he has learned (which directly affects the classroom learning environment). From this came the problem of how to measure the set of criteria of the intervention. I needed to quantify how well the Mentees were learning the specific strategies and adapting them from the TPDs to their classrooms. For the intervention to work, the Mentees would need to understand and be able to adapt and apply the teaching strategies effectively. From looking at the description of Teacher self-efficacy, what I felt needed to be measured was how confident the teachers felt about using the new strategies; "…a judgment of his or her capabilities" (Hoy-Woolfolk & Tschannen-Moran, 2001, p.783). In addition, in order for the implementation of KSSR to have long-lasting continuing success, I needed to know how frequently they felt they should use the strategies and how important they felt the strategies are. I needed to use a scale in which each item was directly related to the KSSR intervention. Since the Mentees are essentially ESL students, it had to be simple and easy to understand as well. The TE instruments discussed above consider PTE along with GTE, which is an undeniable influence, but the Intervention strategies being measured are designed to focus only on the teacher's environment which they can control, in other words, covering only PTE or Teacher self-efficacy. Also, they are too long, too complicated, not specific enough, and do not include all three parts of the teacher's self-efficacy which I wanted to measure. The three parts of Teacher self-efficacy that I wanted to measure are importance (how important the teacher feels the strategy is), frequency (how often the teacher feels he should use the strategy), and confidence (how confident the teacher is in using the strategy). A high importance score means the teacher understands the need to deliver or use the strategy to ensure proper learning with KSSR is happening. A high frequency score means the teacher understands the need to use the

strategy often to ensure effective and consistent implementation of KSSR. A high confidence score means the teacher feels they know the strategy and understands how to do it or use it effectively. Measuring all three is crucial because knowing one or two does not guarantee the other is also equally considered or used. For example, it is possible for a teacher to feel confident about using the strategy of *concept checking* the students without doing it often enough or the teacher is confident in using it but feels that it isn't important to do frequently (and the result is many students still don't understand the concept being taught). Another example is that it is possible for a teacher to feel the need to *concept check* the students regularly but does not feel confident in doing it, so concept check is not done effectively (and, like the previous example, the result is many students still don't understand the concept being taught). Hence, with the help of Dr. Susan Baum from the State University of New York (SUNY), I designed the Lyne Mentor Scale using all three parts (importance, frequency and confidence) with questions directly related to the intervention (see appendix A). It is a Likert Scale that measures Teacher Self-efficacy and is the first dependent variable in the study. However, there are problems with using Likert Scales in scientific research.

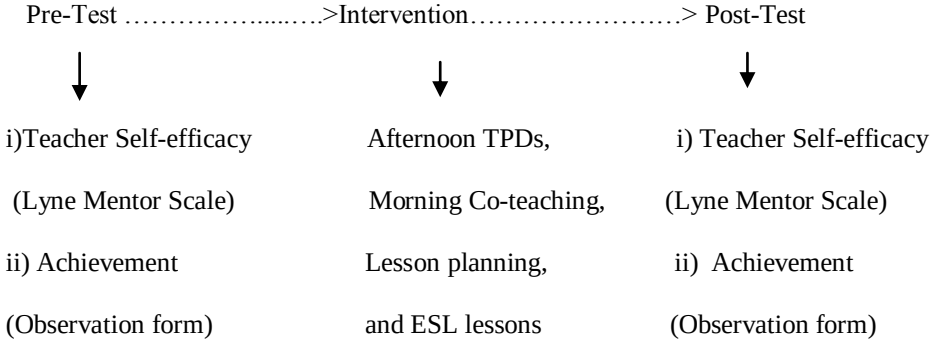
The use of Likert Scales to measure peoples' attitudes towards certain topics is a very common data collection method today (DeJong, Monette & Sullivan, 2002). While using Likert Scales is quick, direct and an easily understood way to gather information, they do have limitations. The participants may avoid extreme response categories; they may agree with statements as presented in order to "please" the experimenter; they may want to portray themselves in a more socially favourable light rather than being honest; there is a lack of reproducibility; and validity may be difficult to demonstrate (Carifio & Perla, 2007; Bedeian, Farh, Werbel, 1988; Fox & Dinur. 1988; Mabe & West, 1982; Wolfer, 2007). Because of these weaknesses, I needed to be able to assess the Mentees in an additional way to see if in fact what they reported on the Likert Scale was having an impact in the classroom. I had to answer the question: "Are the Mentees' self-efficacy scores a true representation of what strategies are being implemented in the classroom?" Hence, I included classroom observations to aid in confirming what the Teacher Self-efficacy scores were indicating. By being in the classroom and seeing directly what strategies were being used, how often and how effectively they were being used, I could confirm, to some degree, the level of Mentee achievement in improving their self-efficacy. Thus, this second dependent variable is called Achievement.

When I looked at the overall TELL programme I determined that it, in itself, is an intervention and I felt the need to find out if it was helping the teachers adapt to KSSR. Thus, I decided to research the question, "What is the effect of a teacher mentoring programme on improving teachers' self-efficacy and achievement in the use of strategies to actively engage their students?" to find out if in fact we are making a difference.

Research design

In order to answer my research question I designed and implemented an action research intervention with a one-group, pre- and post-test design (Figure 1).

Figure 1. Intervention Design



For the first step I used a Likert Scale (the Lyne-Mentor Scale) with specific teaching strategies focusing on the Intervention. The scale has three components, namely importance, frequency, and confidence (see Appendix A). Teacher self-efficacy was compared using pre- and post-intervention scores.

For the second step, in an attempt to confirm the teachers' self-efficacy scores and see for myself how much they have achieved, I also observed the teachers teaching a class. I needed to see how the teachers used the KSSR strategies. I recorded the results on an observation form I designed and called it Achievement (see Appendix B). Achievement was compared using pre- and post-intervention scores. The need for an unbiased score, maintaining the same criteria, made it necessary to use the exact same instrument to assess both pre- and post-intervention levels.

Intervention

It was clear to me that in order for a Mentor/Mentee programme to work, there must be trust between the people involved. There is no way any person would normally accept the guidance of an outsider, especially from another country, if there was no solid foundation of trust and respect. Therefore, at the beginning of the intervention, I focused on building a trusting relationship with each Mentee informally by talking about myself and what I think about Malaysia, education, and life in general. In a group setting many of my Mentees would voice concern about the new KSSR and how they could not achieve the goals it outlined. Sometimes I met on a one-to-one basis which enabled us to discuss very personal problems and issues which further developed trust between us. I gave them my full support and explained to them that I understood their position and problems. As we got to know each other they grew to accept my advice with their lessons and when I went into the classrooms I saw that they had taken my advice and ideas to some extent.

The intervention covered teaching the latest theories on education, lesson planning using the KSSR, as well as supplemental ESL tutorials. The theory was taught in TPDs every Tuesday afternoon for two hours (all 21 teachers in a group) while lesson planning and English was taught in the mornings at each of the five schools (two to six teachers in a group) throughout the week, one school a day. At the same time, I made appointments to visit each class and co-teach, help out with any problems in the class, and observe how things were going. The Mentees were supposed to use the new concepts they learned in the TPDs and apply them to their lesson plans for their students following the KSSR guidelines. From an overhead view, one should have been able to see how the information in the TPDs reached the classroom and enhanced student learning. However, the reality of the situation was that many of the teachers could not understand the high level of theory delivered in the TPDs simply because their English ability was at the beginner level. Having been educated in the Malaysian system themselves, their ability to use their imaginations and adapt the games and activities learned in the TPDs to their students' level was difficult as well. To overcome this, I began to simplify the Cambridge lessons and 'spoon feed' the teachers even more during the TPDs by giving them instructions on how to create specific lessons for that week's topic.

The first TPD lesson covered *Characteristics of Young Learners (YL), Differences between YL and Older Learners (OL) and Pedagogical Approaches for YL*. After a five-minute warm up the lesson started with a ten-minute brainstorming activity that covered the three basic needs of young learners (physical, emotional and cognitive), what they mean, and gave two examples for each need.
For the next section, one of my junior Mentors presented a game called *Treasure Hunt* taking twenty-five to thirty minutes with the following instructions: Tell the Mentee's they are now going to go on a hunt. Tell the Mentee's to take out part B (a handout of a table to enter data). Characteristics of YL and OL are written on cards that are taped to the walls in the room and hallway. The Mentee's, working in pairs, walk around and search for each card. They categorize the data in the YL or OL column. Then, they reconvene and go over the answers.

After it was completed, they had a pretty clear idea of the differences between YL and OL. It was then pointed out that the activity or game (Treasure Hunt) they just finished could be adapted to any lesson.

The next part taking twenty-five to thirty minutes targeted *Application to the Classroom* with the following instructions: Break the Mentees into groups of three or more. Tell the groups to use their handout with a list of different scenarios. One is for YL and the other is for OL. Ask the Mentees to work together to discuss why one scenario is appropriate for YL and why the other one is not. After each group discusses it privately (in English), one member from each group presents the group's thoughts to the class**.** Mentees have to listen, read and, if there is a general consensus, agree on the correct answer and write it down.

The lesson covered the overall theory of YL and OL needs and how they are different under certain situations. Also, it demonstrated how group speaking, listening, reading and writing can be accomplished while learning new concepts. It was then pointed out that this method of grouping with discussion and presentation could be applied to their classrooms. It showed the Mentees how to check for remembering and understanding content and also how to get students to apply what they learned, analyse it and evaluate it in specific situations. Without the Mentees actually knowing what they did, they were effectively using Bloom's Revised Taxonomy.

The final part of the TPD for the last forty to forty-five minutes was to get the Mentees to design specific lessons for their classes. Another one of my junior Mentors presented it with the following instructions: Group all the Mentees into their respective levels so all pre-school Mentees are together, all grade one Mentees are together and so on. Ask each group of Mentees who are teaching the same level where they are in the curriculum and design/plan an activity or game they can use in their lessons over the coming days or weeks. When each group is finished they are to present their lesson one at a time to the class. This can be accomplished using a power point presentation, samples of flash cards, songs, videos, role-playing or any other method they choose. Feedback is to be given through an open forum where all the Mentees share ideas.

The Mentees were quite shy at first and they had to be encouraged to come up to the front and present but when they did they surprised all three of us with their originality, enthusiasm, and cleverness. However, when it came time for giving feedback, it was like 'pulling teeth' because the Mentees would not openly reflect or give opinions. I asked a number of questions in an attempt to draw out a discussion but soon realized it was not going to happen. I decided to end it there so we all clapped hands and I confirmed my plans for the next few days with the Mentees I was going to meet.

The topics of the following TPDs covered YL cognitive strategies, L1 and L2 learning, LOTS and HOTS, Lesson Planning, Resources and Materials, Classroom Management, Grouping, Correcting Strategies, Feedback, Gardner's Theory of Multiple Intelligences, Bloom's Taxonomy, Project Based Learning, KSSR lesson planning, and Language Arts. Throughout all these the focus was on presenting the material through games and activities and then encouraging the Mentees to make up games or activities for lessons that they would use following KSSR but using the concepts covered in the TPDs.

The morning meetings were arranged so that I went to a different school every day and saw the Mentees at a particular school as a group or at least several teachers at a time for at least one hour. This gave me more time to see classes and manage my own required hours for my job to be accomplished according to the contract that my company has with the Malaysian Ministry of Education. Each morning visit consisted of thirty minutes of answering questions concerning lesson planning, phonics, updates, and TPD feedback. The next thirty minutes was a specific English language grammar lesson. The lesson was broken down to ten to fifteen minutes of instruction with one or two worksheets. The rest of the time was devoted to a game or activity based on the lesson. The topics that were covered included verb tenses, gerunds and infinitives, modal verbs, adjectives, countable and uncountable nouns, tag questions, adverbs, phonetic vowel sounds, phonetic consonant sounds, relative clauses, and plural noun forms. After a few weeks I found that one of my groups had to be streamed into two separate ability teams. This forced me to teach two levels of English at the same time. It was not the best situation but with time constraints I had little choice.

Separate from the group or one to one meetings, I also went into each classroom. With twenty one Mentees (plus a new Mentee not in the data) it took me 6 calendar weeks to see each one. Logistically, this was due to time table restrictions in which many schools had all my Mentees teaching English at the same time making it difficult or impossible to see more than one teacher at a specific school in one day. Added in were weekends, school holidays, national holidays, and all the lost time with unexpected Mentee meetings, sick days, and courses that required days or even weeks of leave. Once in the classroom I would co-teach which basically meant that I helped with classroom management and monitoring, but the Mentee always had the lead and total control of the lesson. They all had to give me a lesson

plan when I first walked in the room with time lines (down to the minute for each part of the lesson) to aid in the smooth flow of the class. Unless there was a glaring error in pronunciation or spelling, I never interrupted the Mentee during the delivery of content. I would, however, give feedback in the class during a group activity or game (during a lull). I felt that if the Mentee could see the situation unfold as I pointed out areas that required attention, then perhaps it would be easily understood rather than going over it later. I explained my method of co-teaching to each Mentee beforehand so if I did interrupt or give feedback in class they were not surprised or insulted. Some of my Mentees never needed much assistance and I was so impressed with their organization, methods, confidence and professionalism that I told them they should be video-taped to demonstrate to the other Mentees what one possible model class looks like. I planned on doing just that in 2012.

Sample

The sample used in this study was a convenience sample composed of 21 Malaysian teachers. The teachers were all in the same Mentor programme and were all in my cluster but they came from various teaching backgrounds. There were ten Chinese, one Indian, and ten Malay with 20 of them being female, and 1 being male. None of them had ever been in a mentoring programme before.

Instrumentation and data collection

This study used a one-group, pre/post-test design to gather information regarding both a change in teacher self-efficacy (Frequency, Importance and Confidence) and a change in achievement level of their classes. The first part of my design involved Mentees completing a pre-intervention Likert Scale Survey, named the *Lyne Mentor Scale* (see example in appendix A). Also, as discussed above, in an attempt to confirm the self-efficacy scores, the second part of my design involved observing classes of each Mentee and evaluating their teaching ability or achievement. The criteria on the observation form were created by my company and me (see example in appendix B). The observation time was for a one hour class and the total possible score, perfect, was 44 points. For both the pre-intervention and post-intervention observations, the Mentees were given the rubric in advance so they knew what was expected of them. I also guided them in lesson planning and helped them come up with ideas for activities and games. It was entirely possible for a Mentee to score lower on the post-intervention compared to the pre-intervention, and in fact some did.

Threats to validity

The intervention was done in just one cluster of five schools, during the school year, so there are some threats to validity. The lack of a control group poses significant questions to the legitimacy of my data. Using a control group would have greatly improved upon the validity of the scores, however I did not have access to any non-TELL teachers, so it was not possible. In addition, the sample size of 21 Mentees can be considered to be quite small but since the TELL programme is presented in a similar way throughout all the clusters in the six states of Malaysia by Brighton Education Group, it may be possible to extrapolate the data to include several thousand Mentees.

Instrumentation was not ideal. Both the Lyne Likert Scale and observation form are not validated by other qualified professionals. As discussed earlier, there are many possible weaknesses with Likert Scales. In addition, the fact that I used my own personal experience and part of the company's forms may have caused me to leave out important criteria to

measure, or include criteria that would not be important to measure. The most important things to be measured with regards to a lesson is completely based on opinion and not on scientific facts or evidence. By this, I meant who is to say what the ideal lesson looks like? It is possible to teach the same topic a hundred different ways and each way could be considered good and valid as long as the aims of the lesson were met.

History, or, possibly, maturation was also a factor because many of the Mentees had intervening factors (such as other courses with the Ministry of Education) that forced them to leave the programme for one or two weeks before the intervention was over. They could have learned new concepts or developed new ideas during their hiatus.

The final threat to validity is researcher bias. Not only did I want to prove my hypothesis that mentoring the teachers would improve their self-efficacy, I also wanted to prove to myself that I am working on a very meaningful endeavour worth all my time and effort. If, in fact, the TELL programme works, we will be helping to improve thousands of children's futures across an entire country, and to me that is something to be proud of. For that reason, I focused only on the observations one at a time and looked over each result several times before recording the final scores.

Results

Teacher self-efficacy

The results of a Mentee's overall self-efficacy (as a measure of how each Mentee felt at the time) was measured (both pre-intervention and post-intervention) by having them fill out the Lyne Mentor Scale which included three different sets of self-efficacy criteria (Importance, Frequency, and Confidence; see Appendix A).The two-tailed P value of the overall self-efficacy score was set at 0.05 and the gain in teacher self-efficacy was 9.71 which is statistically significant. Table 1 shows the mean gain in overall teacher self-efficacy.

Table 1. The mean gain in overall teacher self-efficacy

Group	**Pre-Likert**	**Post-Likert**
Mean	61.38	71.10
SD	6.68	5.20

It should also be noted that the standard deviation improved significantly from 6.68 to 5.20, which indicates that the Mentees improved as a group.

Looking further into each component of the overall self-efficacy scores (Importance, Frequency, and Confidence) shows that each part improved. Importance improved from 22.95 to 26.52 = 15.6%; Frequency improved from 19.1 to 22.33 = 16.9%; Confidence improved from 19.33 to 22.24 = 15.1%.

Achievement

The next set of results was the achievement scores for class room observations which help confirm the Teacher self-efficacy scores. Each Mentee was observed in a class both pre-intervention and post- intervention. The scores were based on intervention criteria on an observation form (see Appendix B). From this, one can state that the achievement measured the level of change in the pedagogical approach of the Mentee. If they learned the new pedagogy from the intervention, then the post-intervention scores would be higher than the pre-intervention scores. Hence, a high score indicates a high level of achievement which supports KSSR. For achievement, the score improved from 27.33 to 29.67 which is statistically significant. Table 2 shows the mean gain from pre-intervention achievement to post-intervention achievement.

Table 2. The mean gain from pre-intervention achievement to post-intervention achievement

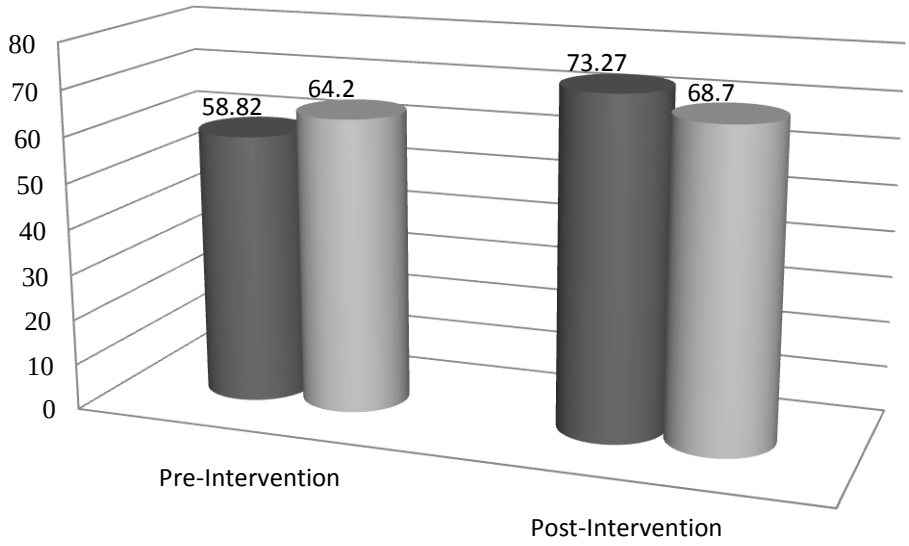
Group	**Pre-observations**	**Post-observations**
Mean	27.33	29.67
SD	3.14	3.76

Teacher self-efficacy differences

While ethnic differences were not part of the research questions, the study revealed some interesting findings. My group of Mentees is mainly made up of Malay and Chinese Malaysians. They are very different culturally, so I looked at how the two different groups' overall attitude scores compared to see if there were any significant differences. Perhaps by knowing how each group feels I can better tailor my Mentoring methods and strategies to improve their scores even more.

When I compared the Malay Mentees with the Chinese Mentees I found that although the Chinese Mentees started off with a higher pre-intervention score, the Malay Mentees eventually surpassed the Chinese Mentees' self-efficacy scores post-intervention. Figure 2 below illustrates this difference.

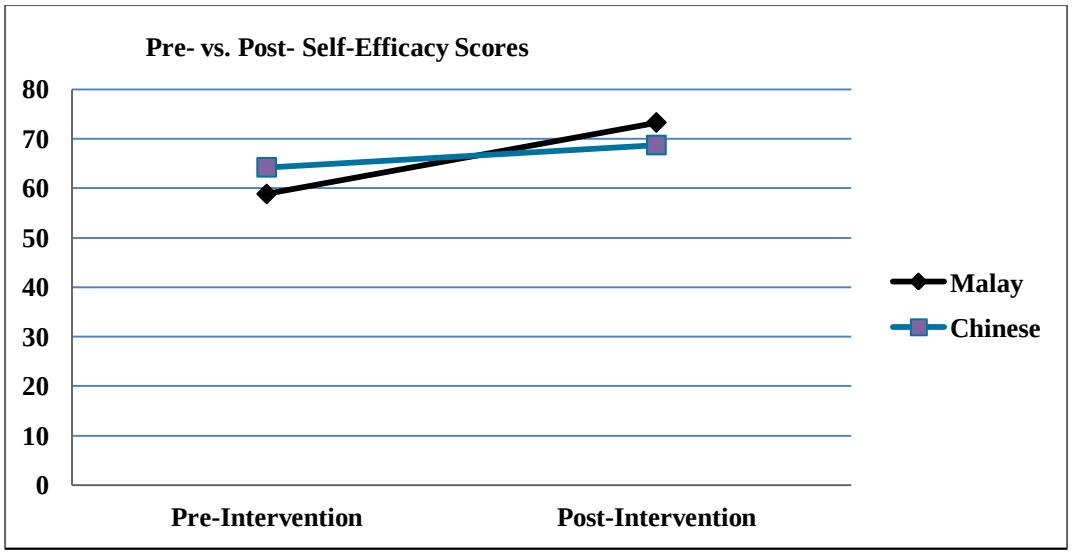
Figure 2. Malay versus Chinese self-efficacy scores



	Pre-Intervention	Post-Intervention
Malay	58.82	73.27
Chinese	64.2	68.7

To further illustrate the two groups of Mentees' scores, in Figure 3, I used line graphs to show where they intersect (the point where the Malay Mentees' scores overtook the Chinese Mentees' scores).

Figure 3. Malay vs. Chinese self-efficacy intersection



Discussion and action plan

The lack of a control group and using unverified instrumentation greatly affects the validity of the results. The study could have benefitted as well from a closer examination of other existing scales/instruments. However, if one can look past these limitations, the results of this study show that there was, to some degree, improvement in both the Teacher Self-Efficacy and Achievement of the Mentees after this intervention. It shows, to some extent, that the Mentees are taking in what new concepts, ideas, material and pedagogy is covered during the TPD workshops and are adapting them and implementing them in the classrooms.

On a realistic note, however, the results come with the caveat that there are no cameras in the classrooms to prove that the Mentees always do what the KSSR programme and our workshops want them to do when the Mentor is not present. I have 22 Mentees spread over five schools so I cannot be in every class all the time. I do get honest feedback from my Mentees and some tell me that they are overwhelmed with work and find it difficult to prepare the detailed lessons that are required to fulfil the KSSR standards all of the time. In the end, they are human after all. Perhaps taking a closer look at each school's class schedules and the number of subjects being taught by each teacher could be altered to make it easier to prepare lessons. For example, if a teacher currently teaches three different grades, perhaps they could be moved to just teaching two grades so multiple lesson plans could more effectively be utilized.

Taking note of the difference in Teacher Self-Efficacy scores between Malay and Chinese Mentees brings more questions than answers. Further research needs to be done to answer some questions like: Why are the Malay Mentees' self-efficacy scores improving more than the Chinese Mentees? What are the basic differences between the Malay schools and Chinese schools that are causing the differences in scores? Is the difference in self-efficacy scores cultural or systemic? What is the effect of English language knowledge on Malay Mentees compared to Chinese Mentees?

I will continue with the intervention until September 2013. I will use the data from this study to augment my Mentoring pedagogy according to which group I am working with in the mornings (Malay and Chinese) since it seems clear (from the data above) that the Chinese Mentees are having more difficulty changing their concept of self-efficacy in the implementation of the TELL project. I do feel that the English ability of the Chinese Mentees is lower than the Malay Mentees which is probably one of the root causes of the difference in self-efficacy. I will place more emphasis on ESL in the mornings with my Chinese schools in the hopes that the Mentees will feel better and implement the KSSR programme more regularly.

Another systemic problem is the lack of communication and sharing of ideas, materials, and lessons among teachers. Duplication of work could be drastically reduced if they just shared more and worked as teams. I have consistently pushed this idea and I will continue to do so. The lack of team teaching is, however, not just the teachers' fault. The culture in the schools is such that the principals are the boss (typical 'top-down' Asian philosophy) and no input from subordinates is asked or appreciated. Because of this, teachers are at the mercy of the schedule that is given to them so they cannot plan group- or team-teaching strategies. I will continue to push for more co-operation and communication between the administrations of the schools and the teaching staff.

Overall, the study does lack a rigorous investigation that validated instrumentation and a control group would have supplied. Any future studies will take these issues into account to improve upon the validity of new data. However, if one accepts the numerous threats to validity, it does demonstrate, to some degree, that the TELL Mentor Project may help teachers deal with change and accept new ideas and teaching methods.

In general, I think there is a need for teacher trainers to seek empirical evidence on the effect their mentoring/training programmes have on their students. Through the process of examination, one has the opportunity to self-reflect and perhaps improve upon one's methods being used.

The relationships that I have formed with my Mentees appear to be bearing fruit. I would conclude that on some level the Mentor programme is working. How the teachers' improvement translates into higher student scores and learning abilities is still years away. However, if the Malaysian government continues with the programme to aid the implementation of child-centred education, it should make a difference, if the developed countries' education system are any indication. Regardless of test scores, at the end of the day, students must be able to think creatively and independently in order to become the next generation of innovators.

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APPENDIX A

The Lyne Mentor Scale
(Adapted from Baum 2006)

Name _____

School_____Date_____

Importance of Use Scale	**Frequency of Use Scale**	**Confidence Scale**
1 Not important at all	1 Never	1 Scared
2 Not that important	2 Sometimes	2 Somewhat confident
3 Important	3 Most of the time	3 Confident
4 Very Important	4 Always	4 Very Confident

Instructions: Using the scale above, circle the number that best measures to what extent the item is important to you as a teacher, how frequently you use it, and to what extent you have confidence in the item's use. Leave unfamiliar strategies blank.

Item	Importance	Frequency	Confidence
1. Establishing Rules and Routines	1 2 3 4	1 2 3 4	1 2 3 4
2. Identify student interests	1 2 3 4	1 2 3 4	1 2 3 4
3. Identify readiness levels of students in terms of academic tasks	1 2 3 4	1 2 3 4	1 2 3 4
4. Introducing games and activities into the lessons	1 2 3 4	1 2 3 4	1 2 3 4
5. Assess students' learning styles and have the lesson cover all three styles (auditory, visual, kinaesthetic)	1 2 3 4	1 2 3 4	1 2 3 4
6. Introducing Role-playing	1 2 3 4	1 2 3 4	1 2 3 4
7. Socratic Questioning (have students answer their own questions by	1 2 3 4	1 2 3 4	1 2 3 4

carefully asking them questions)			
8. Use of random grouping or any type of grouping in the classroom (record each group and award points/stars for motivation)	1 2 3 4	1 2 3 4	1 2 3 4

APPENDIX B

Observation Form

The scale is based on 1-4 in which the higher the score, the better the performance.

4=Excellent 3=Good 2=Fair 1=Attention Needed

Teacher Observation		
Class Visit Date:_____		School Name:_____ _
Teacher Name:_____		Start Time Of Visit:_____
		End Time of Visit:_____
Optionist/Non-Optionist (O/NO).		Other Comments
Pre School (P0) Primary Year 1,2 or 3 (P1/P2/P3)		
No. of Students:_____		
Quality of Pupil - Teacher Interaction and Engagement		
	Score	Comments
Level of pupil engagement and participation	-------	
Teacher's amount of English use	-------	
Teacher provides opportunities for questioning	-------	

Teacher provides opportunities for originality	-------	
Teacher maintains effective control and direction	-------	
Teacher's Assessment and Evaluation Methods		
	Score	Comments
Checked comprehension	--------	
Elicited answers appropriately	--------	
Addressed and corrected mistakes appropriately and effectively	_____	
Allowed for opportunities to self-correct & pair correct	--------	
Teaching and Learning Resources		
	Score	Comments
Appropriate to language ability and age	-------	
Materials stimulating and interesting	-------	
		Total Score: ------