TEACHER PERSPECTIVES OF STELLAR IMPLEMENTATION IN SINGAPORE

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Abstract

This qualitative study explores the perceptions of beginning teachers in implementing an instructional programme, Strategies for English Language Learning and Reading (STELLAR), in Singapore. STELLAR is an instructional programme that consists of recommended instructional materials and research-based teaching strategies to enable teachers to achieve the outcomes of the revised English Language Syllabus 2010. The study also investigates the views of teachers about their preparation programme at the National Institute of Education (NIE), and identifies the support they need in implementing STELLAR. Employing interviews, classroom observations and content analysis, the theory-practice connection and factors for successful implementation based on these teachers' experiences are discussed. In the wider educational landscape of Singapore, the findings highlight beginning teachers' views of implementing a nationwide programme and support needed while meeting curriculum needs.

 Keywords: educational innovation, English curriculum, teacher perspectives, teacher preparation

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Introduction

In the field of education, teachers are critical agents to effect change in their practice. In international teacher research literature, academics have found that teacher education affects teachers to varying degrees, with some basing their practices on their own learning experiences and beliefs, while others experiencing higher efficacy with teacher training (Alwan 2006; Darling-Hammond, Chung, & Frelow, 2002; Feiman-Nemser, 2001; Kane & Russell, 2005; Marble, Finley, & Ferguson, 2000; Robert Tabachnick, Popkewitz, & Zeichner,1979). Grossman and McDonald (2008) suggested developing a stronger relationship between research on teacher education and teaching. Since both teaching and teacher preparation are complicated processes, a larger common focus in the research arena is justified. Teachers also play a major role in managing or implementing changes in curriculum or instructional policies (Alwan, 2006; Darling-Hammond, 1990; Hyland & Wong, 2013). Innovation in education is influenced by teachers' receptiveness and understanding, thus requiring a long term process of integration (Tan, 2001).

This study explores STELLAR (Strategies for English Language Learning and Reading), an instructional programme that consists of recommended instructional materials and research-based teaching strategies to enable teachers to implement the revised English syllabus in Singapore. In order to achieve the goals of the revised English language syllabus 2010, the Ministry of Education has introduced STELLAR. First piloted in 30 schools in 2006, the progressive implementation of STELLAR is carried out nationwide in all primary schools from Primary 1 to 6 by 2015. The revised examination papers for English language at the Primary School Leaving Examination, a nationwide assessment for Primary 6 students are introduced to be in line with the curriculum revision. Ongoing STELLAR training for in-service teachers has been carried out over the years by MOE in order to carry out this progressive nationwide implementation. In addition, this study also seeks to investigate the views of teachers about their preparation programme at the National Institute of Education (NIE), and identifies any necessary

support needed in implementing STELLAR. By exploring teachers' perceptions, the study seeks to inform research on the enactment of STELLAR, highlight gaps in teacher training or support and contribute to suggest future enhancements to the STELLAR implementation process.

Literature Review

In this section, relevant literature related to educational innovations, teacher perspectives, teacher education and the relationship among these variables is examined. The context of this study and details of the STELLAR program shall also be elaborated upon.

Educational innovations

In his review of literature on innovation in English language education, Waters (2009) defines innovation as "an attempt to bring about beneficial change" (p. 421). In his paper, the innovation process is differentiated into three stages: initiation, implementation and institutionalization using Fullan's (as cited in Waters, 2009) conceptualisation of change process. Initiation included rationales, characteristics and contexts of the innovation.

Lambright and Flynn (as cited in Waters, 2014) has identified six roles of the participants in an innovation process. First, adopters such as government organisations are responsible for approving an innovation. Second, the participants who are directly carrying out the innovation are the implementers and teachers are one example. Clients of innovation refer to intended beneficiaries of the innovation and students are the main ones in the educational landscape. Fourth, suppliers are responsible for the provision of resources and material writers are an example. Next, entrepreneurs refer to those who hold the overall accountability for the implementation process. Lastly, resistors are those who oppose the innovation.

Kennedy (1988) reinstated the factors in which participants could influence an innovation through power, support and leadership. Whether an innovation can be sustained depends highly on the suitable use of power. Thus, in an educational context, stakeholders at the management level such as the Head of Department, Principals, and the relevant Ministry Officials play roles of

great significance. In addition, channels of communication have to be maintained so that appropriate feedback from all participants of the innovation is obtained. According to Kennedy (1988), a change in behaviour is required for any innovation as this affects the process and management of the project. In order for any behavioural change to occur, participants of the innovation process should change their way of thinking, which is a comparatively more complicated change.

For the context of this study, the roles played by the different stakeholders of the STELLAR programme are represented as follows. The Ministry of Education is the adopter; the primary school English teachers are the implementers of STELLAR, sharing a reciprocal relationship with their clients, the primary school pupils. The MOE STELLAR planners play the dual role of supplier and entrepreneur to manage the overall implementation and scaling of the STELLAR programme with the support of the other stakeholders. The retired teachers that were recruited also collaboratively performed the supplier role with the STELLAR planners.

In order for an innovation to be accepted, the teachers have a slight advantage over any outsiders in the implementation process (Kennedy, 1988). This is due to their existing knowledge of their working environment, students and culture. However, in adapting materials and accommodating lessons to their students, teachers require appropriate training and this responsibility falls upon the entrepreneurs (Waters, 2014). The role of teachers in implementing an educational innovation cannot be undermined. Thus, in order to achieve success in an innovation, concerns of teachers involved should be surveyed.

Teacher Perspectives

Teacher perspectives are defined as the "ways in which teachers think about their work (e.g., purposes, goals, conceptions of children, curriculum) and the ways in which they give meaning to these beliefs by their actions in classrooms" (Tabachnick, Zeichner, Densmore, & Hudak, 1983, p. 2). The authors conducted a two-year longitudinal study of first-year teachers and identified the factors that influenced the development of teacher perspectives. One of the key

findings was that the extent of organisational control affected the perspectives of expected desirable behaviour in the workplace. A beginning teacher could learn the school's expectations through the existing curricular objectives, content and materials and accommodate accordingly to the evaluation and monitoring processes.

Alwan (2006) conducted a study to explore the perceptions of secondary school teachers' on curriculum change in United Arab Emirates. In the study, teacher perceptions were defined as the "constructions of reality in areas related to the educational context" (p. 45). First, the researcher found that both beliefs and perceptions influence the decisions of teachers in the classroom. Thus, the choice of techniques or strategies that teachers choose will vary in accordance to the level of importance given to their perception of relevant skills. Second, the teaching context influences teacher views of themselves and their classroom behaviour.

Clark (1988) clarifies in his paper that research on teacher thinking is beneficial to teacher preparation programmes. Firstly, teacher thinking research provides data that teachers hold implicit ideas and beliefs about successful teaching and enrols into teacher education programmes with these preconceived mind-sets. However, these prospective teachers usually hold unfair preconceptions as these ideas emerged from seeing and hearing only the "performance side of classroom teaching" (p. 7). Thus, teacher education programmes have the responsibility to raise these prospective teachers' awareness of their biased beliefs. Secondly, to understand the role of planning for teachers, teaching thinking research helps to shed light on how teachers use curriculum materials and helps them to reflect upon their instructional processes as well.

In summary, researchers have found that teacher perspectives could lead to different consequences in their teaching behaviour, which in turn affects the implementation process of an educational innovation. Teacher education programmes could influence the teacher perspectives during their pre-service days in the training institutions. Relevant studies of teacher education will be discussed in the next section.

Teacher Education

There needs to be an appropriate balance between theory and practice in learning to teach and this is a constant challenge for most teacher training programmes (Randall & Thornton, 2001). Freeman and Johnson (1998) reminded teacher educators that teachers are "not empty vessels waiting to be filled with theoretical and pedagogical skills" (p. 401). Instead, student teachers enter the programmes equipped with their prior experiences, values and beliefs that will inform their responses during training.

Shulman (1987) listed seven types of knowledge necessary for teaching and these include: (1) content (2) general pedagogic (3) curriculum (4) pedagogical-content (5) learners and their characteristics (6) educational contexts (7) educational ends, purposes and values and the philosophical and historical issues. Randall and Thorton (2001) related Shulman's knowledge categories to English language teaching in a theoretical approach. Firstly, content knowledge refers to the teacher's proficiency in English and the formal aspects of the language. This category may also include cultural aspects of teaching. Next, generic pedagogic knowledge refers to classroom management and control and is closely related to the practical aspects of teaching. Curriculum knowledge includes the materials used in the educational systems in the relevant contexts while pedagogical-content knowledge refers to the methodology of language teaching. Understanding the students in order to customise learning and knowing about the sociocultural and institutional contexts constitute the next two types of Shulman's knowledge categories. Lastly, Randall and Thorton (2001) commented that the final knowledge category is a major element of "initial training programmes within tertiary institutions but not language teacher preparation programmes" (p. 29).

Loughran (2006) also maintained that knowledge and practice should complement each other in teacher education. Korthagen, Loughran, and Russell (2006) formulated seven principles for teacher educators in setting up teacher education programmes through their analysis of three pre-service teacher education programmes in Canada, Netherlands and Australia. The first

principle is that learning about teaching involves continuously conflicting and competing demands. The authors proposed that student teachers have to be taught to recognise and respond to the situations that occur during their teaching and not have the misconception that theory directly translates into practice. This misconception, if not corrected may result in a "reality shock" for beginning teachers (p. 1027). The second principle posits that learning about teaching requires a correct view of knowledge creation. The authors explained that although teacher education programmes are introducing more process-oriented view of knowledge, student teachers should be encouraged to independently develop their learning and teaching theories. The third principle states that the focus of teaching should be shifted from the curriculum to the learner. Teacher educators could provide opportunities for student teachers to be "embedded in the experience of learning to teach" (p. 1030).

The fourth principle is that student teachers could reflect upon their practicum sessions to increase self-awareness of their learning as compared to relying solely on feedback from their supervisors. This promotes ownership of learning and becomes more meaningful for the student teachers. Korthagen et al. (2006) also highlighted the need for student teachers to develop a close and supportive professional relationship in their fifth principle. The authors suggested that student teachers could also participate in supervision during practicum and help one another develop teaching skills through reflection and collaboration with the supervisor. The sixth principle illustrated a need for close cooperation between school and university, and also among "teachers in schools, teacher educators in universities, and those who are learning to teach" (p. 1035). Lastly, the authors wrote that teacher educators should model the teaching processes that they advocate to the student teachers in their teacher education programmes. In summary, the researchers suggested these principles to guide teacher educators. With reference to the above principles, teacher education programs could be reviewed to suit individual contexts and educational environments (Korthagen et al., 2006).

On the contrary, other scholars recommend that teacher educators focus on preparing their students for the multitude of uncertainties that may appear in their work, equipping them with the skills to react appropriately in real classroom settings (Floden & Buchmann, 1993; Floden & Clark, 1988). Clark (1988) contends that teaching is "complex, uncertain and peppered with dilemmas" (p.9). In this aspect, teacher thinking research can help the teacher educator to understand the decisions made by the teacher in act of teaching. Thus, teacher education programmes should prepare teachers for these uncertainties in the profession and equip them with the necessary skills.

Darling-Hammond et al. (2002) conducted a study in America about the level of preparedness of teachers after they have completed their teacher training programmes. From the response of nearly 3000 beginning teachers, the researchers identified two highest rated programmes in preparedness through their study. These programmes consisted of "strong school relationships" and one major element was the "extensive, carefully supervised clinical work" that range from 24 weeks or more, and this enabled the student teachers to focus on developing their content-based pedagogy (p. 293). However, the study also found that many teachers felt unprepared for using technology, teaching English language learners and students' self-assessment.

Thus, in the above section, studies have illustrated the importance of understanding teachers' perspectives of teacher education programmes as teachers do not begin as blank slates. Teacher educators should be informed about the important aspects of their institutions' training programme that could be supplemented or improved further through hearing the teachers' voices.

Beginning teachers

Chong and Tan (2006) recognised that beginning teachers have many responsibilities to juggle in the initial phase of their career, despite completing training. The induction period can last from three to five years of a teacher's career. This is when beginning teachers may grapple with issues that involve classroom management, lesson planning, evaluating resources, time

management and relationships with colleagues (Eisenman & Thorton, 1999). Over a period of five years, interview data collected from first year teachers revealed their greatest concerns as meeting the needs of students (Gilles, Cramer & Hwang, 2001). The researchers attributed these findings to the "consistent mentoring, peer support and relevant coursework" for their Teaching Fellows Programme, in which their participants were selected from (p.95).

A teacher has to manage two roles in the beginning phase of their career – to teach and learn how to teach (Wildman, Niles, Magliaro and McLaughlin, 1989). As teaching occurs in various contexts and conditions may change every year, beginning teachers may require up to three years of induction and this process is highly individualised for each teacher (Wildman et al, 1989). There are also other researchers who contend that beginning teachers generally graduate from teacher education programmes, positive and confident in their ability to start their actual teaching (Kagan, 1992; Kane, 2002; Korthagen et al, 2006; Russell & McPherson, 2001). More often than not, learning how to teach also happens on the job (Feiman-Nemser, Remillard, & Murray, 1995).

Beginning teachers play an important role in the school community. The multiple situations that they have to juggle with in the initial phase of their career could be supported by their working community. However, more often than not, these teachers have to learn through their own teaching experiences and gradually build up a repertoire of skills in managing their classrooms.

Sociolinguistic Situation in Singapore

Singapore is a multilingual and multiracial country of a population of about 5.5 million, consisting of both residents and non-residents. With its strategic location, Singapore developed from a "humble village to a great trading port" from 1867 to 1942 (Ng, 2011, p.1). The ethnic composition is approximately: 74% Chinese, 13% Malay, 9% Indians and 3% others (Department of Statistics, 2015). As a result of the country's colonial history and the current population

comprising of descendants of immigrants coming from various parts of Asia, a complex

sociolinguistic landscape has emerged.

Another historical influence to the linguistic landscape is the separation of Singapore

from the Federation of Malaysia in 1965 (Rappa & Wee, 2006). As Singapore society was diverse

in ethnicity and linguistically at that time, the government was challenged to unify the citizens of

this small nation. The majority of the resident population was Chinese who were linguistically

heterogeneous as their ancestors came from different parts of China and spoke mutually

unintelligible Chinese languages. Thus, to unify the Chinese community, the government selected

Mandarin Chinese as the common language and initiated a "Speak Mandarin Campaign" in 1978.

Although the Indians were a minority in Singapore, "Malayee, Sikh, Sindhi, Sri Lankan and

Tamil communities" existed and Tamil was chosen over the rest as the language to be taught in

schools (Rappa & Wee, 2006, p. 85). In contrast, there was less linguistic diversity in the Malay

community so there were no major issues in intra-communication (Hornberger & Vaish, 2009).

Language Policies in Singapore

Given the complex sociolinguistic situation in Singapore, language policies in the nation

state had to achieve multiple goals. Politics played a main role in the formulation of language

policies and there was a top-down approach (Gupta, 1994, Ng, 2011). Rappa and Wee (2006)

elaborated that the language policy in Singapore was based on four central ideas. Firstly, nation-

building required a unifying language for reducing linguistic diversity. Secondly,

multiculturalism has to be achieved with the peaceful co-existence of ethnic communities,

granting each group access to their "mother tongue". Thirdly, English is important in the

globalization market and proficient speakers are perceived to be more valuable to employers.

Lastly, the pragmatic approach taken by the government where the nation's pressing issues are

the most vital to solve as compared to the preservation of traditional or cultural values.

Although English was chosen as the working language, Malay is still the national

language. In fact, English, Mandarin, Malay and Tamil share the status as co-official languages of

Singapore (Low, 2014). This was a calculated move by the government as a young nation with Malay-Muslim neighbours as this choice did not risk the misunderstanding of Singapore turning into a Chinese state (Rappa & Wee, 2006). Besides being the "neutral language, English was the language for technology and economic development, serving a vital function in the initial stages of independence.

The bilingual policy started from 1960 where the learning of a second language was compulsory at the primary school level (Low, 2014). English eventually gained a "premium" status as there emerged an increasing trend of parents enrolling their children into English-medium schools, in the hope for higher educational qualifications and better job prospects (Chew, 2007; Pakir, 2001; Rappa & Wee, 2006). Other language policies also came into effect, the first being the 'Speak Mandarin Campaign' in 1979 (Low, 2014). The campaign championed the decrease in the use of Chinese dialects and was lauded as "the world's most successful language-engineering campaign" (Chew, 2007). The government aimed to unite the majority ethnic group, the Chinese, through this campaign and also help Chinese Singaporeans to attain successful bilingualism (Low, 2014).

Education System in Singapore

Singapore has a centralised education system as policy makers believe that this enables the small nation state to respond in the quickest and most efficient manner when faced with external challenges (Lee, Hung, & Teh, 2015). In order to understand more about the effects of a centralised system to the overall school system, especially in English language education, which is the focus of this study, developments that led to the current twenty-first century competencies based and student-centred pedagogies system would be traced in the following paragraphs.

During the late 1950s to 1960s, the top priority for Singapore's education system was to develop students with literacy and numeracy skills as survival was of paramount importance (Lee, et al., 2015). Thus, this resulted in a common curriculum and the government exerted firm control over schools (Ng, 2013). In addition, nation building and social cohesion was another key focus

for the country as immigrants came from diverse backgrounds. Through the bilingual language

policy, where students learn English and a Mother Tongue language, citizens were expected to be

able to relate to other ethnic groups, keep up with global trends and remain connected to their

cultural roots (Ministry of Education, Singapore 2009). Although there were centralised efforts to

improve the quality of schools, schools with different languages of instruction still existed till the

late 1970s and academic achievements were not up to expectations (Lee et al., 2015).

       In order to improve academic achievement and performance of schools, Singapore

transited from a survival phase into one of efficiency, which lasted from 1979 to 1996 (Lee et al.,

2015). Instead of common curricula, all students had to undergo ability-based streaming and

experience a variety of curricula and syllabi in accordance to their academic track. The results

were encouraging as the percentage of students who qualified for admission to secondary schools

at the end of primary six was on an upward trend from 1990 to 1996 till around 96% overall. The

secondary school students also had better performance with more than 90% attaining more than

three or more GCE-O-level passes (Ministry of Education, Singapore 2000).

       The efficiency phase was characterised with centralised and teacher-centred education.

However, the authorities understood that in order for Singapore to progress further, more

autonomy was to be given to schools to adapt their curriculum, in line with educational policy.

Schools were expected to improve in quality and be accountable for their progress (Ng, 2013). In

effect, decentralisation of the education system began and there was a gradual increase in

decision making opportunities at the school level, by principals and teachers as stakeholders who

were deemed as those who understood their students the most (Lee et al., 2015; Ng, 2013).

       Lee and his colleagues (2015) characterised this next phase as the ability phase, from

1997 to 2011. The previous phases in the education system resulted in a "high level of conformity

to standards" and a negative repercussion was the "over reliance on headquarters and external

appraisal" (Ng, 2013, p.123). Thus, Ng (2013) noted that there were two areas of improvements

expected from schools - innovation capacity and internal quality assurance. In this phase, students

were allowed multiple pathways to move up the educational ladder and achieve excellence. At the same time, technology was introduced strategically in order to move towards inquiry-based learning (Lee, Goh, Fredriksen, & Tan, 2008).

A major reform movement in the mid-1990s was the introduction of the vision of Thinking Schools, Learning Nation (TSLN) by the then Prime Minister Goh Chok Tong (Sharpe & Gopinathan, 2002). In response to this vision, the Ministry of Education was spearheading three initiatives – Information Technology (IT) masterplan, critical and creative thinking curricula and National Education, which is citizenship education (NE). Thus, the subsequent years saw a reduction in content in curriculum, beginning of interdisciplinary project work and increasing focus on school processes as basis for appraisal (Sharpe & Gopinathan, 2002).

In terms of instructional decisions, Singapore is greatly influenced by grades of students (Hogan, 2014). This is due to the existing high-stakes examinations that are still widely supported by the ministry as means of maintaining standards and preparing students to face global competitiveness (Heng, 2013). Based on feedback from stakeholders, the Minister of Education, Heng Swee Keat, shared a new phase – *Student-centric, Values-Driven Education* in 2011 (Heng, 2011). In his address, the focus of the education system was very clear, emphasising values and character development, developing students towards the twenty-first century competencies (Ministry of Education, Singapore 2014). Singapore's education system has been highly successful; the PSLE passing rate was 97.6% in 2014, and this proportion of students could enrol into secondary schools (Department of Statistics, 2015). In addition, Singapore has also achieved the top spot for the most recent global school rankings by the OECD (Organisation for Economic Co-operation and Development) and test scores in Mathematics and Science were the deciding factors (Goy, 2015).

EL Language Education in Primary Schools. Based on the brief description of the phases in the education system over the years, this section will give an overview of the developments and components of the English Language Education in Singapore, in particular the

primary school sector. In Singapore's unique sociolinguistic context, English language education has been widely reviewed since English has been the instrumental language in contributing to the current success of Singapore's thriving economy and is also the working language of the government and commerce (Cheah, 2002).

In view of the fact that English has been the medium of instruction in schools, the English language syllabus has been constantly reviewed based on the development in the education systems and evolving linguistic landscapes (Ang, 2000; Cheah, 2002; Lim, 2002; Rubdy & Tupas, 2009; Zhang, 2006). The English language syllabus changes every decade, reflecting the changes in the needs of the local population who have wide access to world issues via the advent of technology and internet access (Pakir, 2004).

In the 1950s and 1960s, English language syllabi were separate as there were schools with different mediums of instruction and this influenced the standards of the English language taught (Cheah, 2002, Lim, 2002). In the first published primary syllabus in 1959, the assumption had been that students entered the first year of school without any English language knowledge and the focus was mastering grammar and literacy appreciation (Lim, 2002).

The next updated syllabus was published in 1971, with the educational landscape shifting towards solely English-medium schools due to the demand of English at work (Cheah, 2002). The entry assumption for primary school students changed to being learners of English as a second language (Lim, 2002). The primary syllabus was also presented as two sections – Lower and Upper Primary. The lower primary students were taught based on a speech syllabus, with focus on grammar and specified sentence patterns. In addition to the sentence patterns, upper primary students were taught to become proficient in both grammar and syntax. An enrichment syllabus was also created with the aim of improving oral language development and this was a prescribed requirement for schools (Lim, 2002). During this period, English language materials were developed locally by the Curriculum Development Committee and the Ministry of Education (Lim, 2002).

As ability streaming in the education system started in 1979, English language education consisted of corresponding changes and a new syllabus was introduced in 1981 for students in the different streams (Lim, 2002). Functional literacy was a central goal and students were expected to reach a proficiency level for all four skills that was appropriate for learning the content of other subjects such as Science and Mathematics. Lim (2002) emphasised that this syllabus was the first that did not integrate language components with literary enrichment and this was a response to the need for English functional literacy, aiming for the mastery of "minimum core skills" (p.86). However, Cheah (2002) maintained that the syllabus was still mainly "grammar-based and highly prescriptive" although it was already a "reductive" one (p. 67). The Curriculum Development Institute of Singapore (CDIS) was set up in 1980 and various English language resources were produced locally.

During the mid-1980s, Singapore was introduced to Communicative Language Teaching (CLT) that signalled a contrasting view of language learning as advocated in the 1981 syllabus (Cheah, 2002). This was also a period where MOE was seeking to improve their English language teaching methodologies (Zhang, 2006) and thus following the global interest and shift towards CLT (Cheah, 2002), MOE initiated two programmes at the primary school level – *Reading and English Acquisition Programme* (REAP) for lower primary and *Active Communicative Teaching* (ACT) for upper primary. REAP used "Shared Book" and "Language Experience" approaches and also a book flood approach (Zhang, 2006, p.4) while ACT prioritised fluency over linguistic accuracy (Rubdy & Tupas, 2009). These projects played a significant role in the revised syllabus in 1991, where a major shift in the role of English in the national curriculum occurred.

The 1991 English language syllabus witnessed a change of English as a medium of instruction to the status of a first language while the official mother tongues were accorded second language status (Cheah, 2002; Lim, 2002; Rubdy & Tupas, 2009). The syllabus was thematic and communicative and learners had to be prepared to use English in wider contexts

(Cheah, 2002). The success of the REAP and ACT in the previous cycle prompted the ambitious

plan of teaching English at a first language level and encouraging holistic English learning

(Zhang, 2006). Chew (2006) also noted that this was the first syllabus that portrayed teachers as

facilitators and not sole knowledge providers.

With such a revolutionary approach in the 1991 syllabus, Chew (2006) contended that the

CLT approach was not suitable in the Singapore context, given the educational demands of the

country. Three contributing factors were raised: (i) the lesser emphasis of explicit grammar

teaching, (ii) the examination culture and demands of a meritocracy community, and (iii) CLT is

in contrast to the Confucian tradition in the classroom regarding student. Lim (2002) stated that

"what the syllabus writers had intended as a feature for choice and variety became a burden rather

than the gateway to teacher autonomy and freedom" (p.89). Consequently, not only was there

lesser efficiency in teaching reading and writing, grammar teaching was marginalised (Zhang,

2006) as teachers were not competent in their own grammar knowledge and did not know how to

fully utilise the grammar items inventory (Lim, 2002).

In order to address the issues, the 2001 English language syllabus incorporated both

communicative and structural components (Chew, 2006) and was supported by the following

theoretical principles (Ministry of Education, 2001, p. 3):

1. Language is a system for making meaning.

2. It is a means of communication and expression.

3. Language use is determined by purpose, audience, context and culture.

4. Language has grammar and linguistic structures and patterns, which can be used to create

    various discourse forms or text types depending on the linguistic choices to suit purpose,

    audience, context and culture.

This syllabus was characterised by the use of text types as context for explicit grammar teaching

and a new feature was the "focus on literacy development as a life skill and indicator of academic

progress" to make informed choices of language use beyond school situations (Rubdy & Tupas, 2009, p. 324).

Based on the 2001 syllabus, Goh, Zhang, Hong and Hua (2005) conducted a large-scale study to examine the possible implications of this curriculum change based on teachers' knowledge and beliefs. The results revealed that the new syllabus posed a challenge for teachers as there was a narrow interpretation of its goals and unequal distribution of pedagogical content knowledge among teachers. In addition, examinations still had a greater impact than syllabus on teachers' decisions regarding the planning and conducting of lessons. Although the pedagogy in the 2001 syllabus appeared to be a much improved version of its predecessors, Lin (2003) contended that the recommended approach was negatively influenced by the backwash effect of examinations.

In addition to the above issues, Cheah (2002) identified teachers' over-reliance on textbooks as a challenge for the implemented syllabus. Since the closure of CDIS in 1996, private publishers have offered a variety of resources in the market and teachers who do not have experience in choosing appropriate textbooks according to the students' needs are challenged, especially in the primary school where choice in resources was minimal in the past. Moving forward, Cheah (2002) suggested that the next syllabus should allow students to develop the capacity to "negotiate among contexts" and use English appropriately and as a means of communication (p. 77).

The Current English Curriculum. The English Language Syllabus 2010 and the STELLAR curriculum are the most recent reforms in the English language sector (Curdt-Christiansen & Silver, 2013). The 2010 language syllabus builds on the strengths of the 2001 syllabus and effective language use remains its main aim. STELLAR works based on following principles (Ministry of Education, 2008):

1. provide an enjoyable experience with books for all children
2. encourage all pupils to practise oral communication in non-threatening situations

3.   listen to, read, view, enjoy and understand a range of texts

4.   speak, write and make presentations to suit purpose, audience, context and culture

5.   think through, interpret, evaluate and respond to a variety of texts and media,

6.   interact effectively with people

Instructional materials and teaching packages are provided to schools from the STELLAR curriculum board. The resources include reading text, detailed lesson plans, worksheets, writing prompts and teacher recommendations for teaching language form explicitly. Professional development for STELLAR was progressively provided for all primary schools by MOE officers after pilot studies were completed.

For the lower primary levels (Primary 1 and 2), STELLAR lessons used Shared Book Reading Approach (SBA), Modified Language Experience Approach (MLEA) and Learning Centres (LC). Each unit was to be completed in two to three weeks and the strategies were adapted to suit Singapore's needs with more explicit grammar instruction and language skills assessment worksheets (Curdt-Christiansen & Silver, 2013). On the other hand, the middle (Primary 3 – 4) to upper primary levels (Primary 5 and 6) used Sustained Silent Reading (SSR), Supported Reading (SR), Know - Want to know - Learnt (KWL), Retelling (RT), Writing Process Cycle (WPC) and Differentiated Instruction (DI) (Ministry of Education, 2008).

There have been few published and accessible studies that examined various aspects of STELLAR implementation till date. Curdt-Christiansen and Silver (2013) examined STELLAR lessons to highlight the relationship between classroom practices and the sociocultural realities in Singapore lower primary classrooms. The researchers observed surface changes in the physical and pedagogical aspects of the learning environment but changes in methodology, usage of materials and teacher authority were lacking. Their study affirmed that educational innovation was possible; however, there were societal and cultural values in the Singaporean educational landscape that required consistent discussions among the stakeholders.

In another study, Silver, Curdt-Christiansen, Wright and Stinson (2013) found that there was considerable uniformity across English lessons at the different participating schools in the execution of STELLAR lessons. This finding was interpreted to be an alignment of curricular innovation and professional development, where teachers received formal training for the new STELLAR curriculum or received support from their school's STELLAR mentor. However, the researchers also raised concerns that this "structured approach to introducing STELLAR instead lead to a homogenised pedagogy" and complete replication of the lesson plans (Silver et al., 2013, p.12). This is in contrast to the promotion of differentiated learning in the Singapore school system.

Teacher Education in Singapore

Deng and Gopinathan (2003) classified the development of teacher preparation into four phases. The first phase was to generate a substantial pool of teachers to meet the rising demands from 1950 to 1972. Training was offered by the Teacher Training College, which was a unit of the Ministry of Education and comprised the following sections: (i) educational theories and subject matter, (ii) pedagogy and (iii) practicum sessions. The second phase saw the establishment of the Institute of Education, and emphasis was on the provision of a common teacher training programme and improving the quality of the programmes. This lasted from 1973 to 1981. From 1982 to 1990, the framework for practicum was the key focus and programmes were also designed for the various languages of instruction. The last phase began in the 1990s and teacher education was upgraded to university level, while the National Institute of Education (NIE) was founded in 1991.

In order to match the changes in schools, NIE had to respond accordingly by adjusting their initial teacher education programmes. In 1999, a major review of teacher preparation was conducted in response to the changing school expectations and implementation of new initiatives in Singapore (Deng & Gopinathan, 2003). As a result, a new teacher education framework – the *Desired Outcomes of Initial Teacher Training* was adopted. Three strategic thrusts were proposed

for NIE: (1) delivering quality teaching training programmes through a programme-driven matrix organisational structure; (2) adopting specific areas of research to meet national needs and working towards a world-class reputation in educational research; and (3) developing an excellent corporate support structure. However, Deng and Gopinathan (2003) were concerned that there was an overemphasis of structural, organisational and curricular issues in the changes in teacher education programmes.

In his evaluation of the teacher preparation programme at NIE, Deng (2004) identified two major overlooked areas. First, transforming the beliefs and perspectives of pre-service teachers had to occur if teachers were to become "active agents for educational change" (Deng, 2004, p. 167). The teacher preparation programmes were primarily focused on transmitting technical and practical skills. Another area that was neglected was the initiation of pre-service teacher into developing a wide range of perspectives and understanding that add value to the teaching profession (Deng, 2004). Deng (2004) suggests that teacher preparation programmes should allow teachers to "view education and teaching as a moral enterprise" (p.168). Furthermore, the engagement of educational theory allows the pre-service teachers to ponder over curriculum and teaching and learning issues in depth. Exploring deeper into their implicit beliefs and expanding their views leads teachers to critically examine their practices (Smith, 1992, as cited in Deng, 2004).

One of the key admission requirements into NIE's initial teacher education programme is the proficiency in English language. All potential candidates are expected to obtain at least a B3 Grade in the GCE-O levels English or Grade B in General Paper at the GCE-A levels. There are a series of pre-service courses for selection for potential English language teachers at primary school level: 2-year Diploma in Education, the 4-year Bachelor of Arts/Science (Education) or 1-year Postgraduate Diploma in Education (PGDE) Primary. The different programmes vary according to duration of training and module requirements for graduation. The teacher education

programmes at NIE is steered by subject matter knowledge, pedagogical knowledge and contextual knowledge (Low, 2014).

There exists a two-stage admission process to become a teacher in Singapore. First, the potential candidates are short-listed based on NIE's admission criteria. Then, candidates have to pass an interview by MOE in order to be selected (Lim, 2013). Before proceeding to NIE for their initial teacher training, successful candidates have to be posted to schools as untrained teachers for a period of time. According to Lim (2013), this stint enables the candidates to comprehend the actual teaching situation and also to further evaluate if they are suitable to become teachers. Teachers' suitability is assessed through feedback from the schools they were allocated to. In the PGDE programme which caters for student teachers who already possess an undergraduate degree, training lasts only for one year and the course comprises of content upgrading, education studies, curriculum studies, and a ten week practicum. All trainee teachers are expected to serve a three-year bond as the tuition fees at NIE are fully sponsored by the Ministry of Education and a monthly salary and year-end bonus would also be given.

Since education involves a complex social system, simply understanding the teaching strategies and philosophy is insufficient in implementing the innovation. In an educational change, teachers may not completely understand the expectations and modify their classroom behaviour accordingly. Thus, Goh (2015) reiterated that achieving the aims of policy initiatives would have to begin from the ground realities. Beginning teachers have dual roles to juggle: teaching and learning to teach (Wildman et al., 1989). Without appropriate support structures, beginning teachers may develop feelings of stress, anxiety and loss of confidence when tasked to handle an education innovation.

Thus, this study aims to give a voice to beginning teachers' perspectives with respect to the current STELLAR programme in their school and the necessary support they feel that is needed to facilitate their lessons. In addition, the teachers would also be asked to share their

perceptions about their teacher preparation programme in Singapore's sole training institution, NIE and the relevant support for their English language teaching in their current schools.

Purpose of Research

This research aims to investigate the perceptions of primary school teachers in the implementation of STELLAR in their classrooms. In addition, the relationship between the preparation of teachers in the PGDE (Pri) programme at NIE and the implementation of STELLAR would also be explored. As STELLAR is targeted to be implemented in primary schools throughout Singapore, the level of readiness for beginning teachers to implement STELLAR is a critical issue. In the wider settings of Singapore's educational polices, this research also intends to clarify the ways in which teachers apply their training in customising and using materials from curriculum initiatives.

Significance of the Study

There are multiple role players in an innovation adoption. Waters (2014) highlights that identifying the relationships among the role players and being informed about their perceptions is vital in the implementation process. Although there have been previous innovation success stories among English Language education literature (e.g. Kennedy, 1987; Markee, 1997), there are mostly small-scale implementations. Comparatively, there are lesser published studies on successful nationwide level innovation management programmes.

Limited research has been carried out in teacher education to examine how "particular features and practices of individual programmes are shaped by the broader contexts of state and national policies, by local schools and labour market demands, and through institutional contexts of particular colleges and universities" (Grossman & McDonald, 2008, p. 194). Thus, there is sufficient justification to carry out this study to investigate how the different contextual factors affect STELLAR in Singapore. Effective implementation of STELLAR has to rely on the clear purpose and understanding of teachers' perceptions towards the curriculum. In order to better

support teachers, clarifying any deficiencies in the teacher preparation programmes for preparing them to use STELLAR is also vital.

Research Questions

This research was conducted to answer the overarching question: How does the training at NIE prepare beginning teachers to implement STELLAR curriculum in primary classrooms? The main question is investigated through the following sub-questions:

1. What are primary English teachers' perceptions of STELLAR curriculum? What is their understanding of STELLAR and the principles behind this curriculum?

2. What are the reasons for these perceptions of their English language school curriculum integrated with STELLAR? How do the school contextual factors (e.g. mentors, class, school type) affect the teachers' implementation of STELLAR?

3. What role does teachers' prior training experiences in NIE play in the implementation of   STELLAR? How ready are the teachers to use the STELLAR strategies? To what extent were teachers exposed to STELLAR-type instructional practices prior to actual teaching in schools?

Methodology

In order to understand teachers' perspectives and practices of the STELLAR curriculum and the level of preparedness their NIE training provided, a qualitative study design was chosen. Bolster (as cited in Maxwell, 2005) suggested a qualitative approach that places more importance on teachers' perspectives and understanding of specific settings as having more value for the educational arena.

Sample

Purposeful selection was planned and interview participants were selected from three groups respectively: beginning primary English teachers; instructors of English-related modules in the PGDE (Pri) programme and STELLAR representatives from MOE. Beginning primary

English teachers referred to teachers who had graduated from PGDE (Pri) programme in recent years (2013-2014) and have had opportunities to implement STELLAR curriculum in their English classes. NIE instructors were representatives from the five English related modules in the PGDE (Pri) programme: Teaching Reading and Writing, Teaching Oral Communication, and three English Language Content Enhancement modules. STELLAR representatives from MOE referred to curriculum personnel who were involved in the formulation of STELLAR lesson packages and are familiar with the content and objectives supporting the curriculum.

After surveying previous research of perspectives in education that employed interviews, the average number of interviewees range from six to sixteen based on the responses from the invitation to participate (Bonavidi, 2013; Lam, Alviar-Martin, Adler, & Sim, 2013; Paris & Combs, 2006; Zein, 2015). Interviewing requires a considerable amount of time, from establishing access and contact with potential participants to transcribing and interpreting data (Seidman, 2006). Therefore, for the purposes of this research and due to time constraint for seeking permission and collecting data, six teachers and four NIE instructors were targeted to be interviewed.

The initial target of six schools and six teachers was not met as some principals did not respond to the invitation to participate (Appendix A) while one cited other research commitments as reason to decline participation. In the end, one school principal replied positively and four teachers were selected based on the following criteria: 1) graduated from PGDE (Pri) programme, 2) beginning teachers with less than three years of teaching experience. For NIE, three instructors gave consent for the interviews and they taught the following modules: Teaching Reading and Writing, Teaching Oral Communication and Communication Skills for Teachers. The targeted STELLAR representatives from MOE declined participation in this study.

Data Collection

This research was conducted using semi-structured interviews (Appendix B & C) and classroom observations (Appendix D). Interviews were conducted on a one-to-one basis for all

participants ranging from forty minutes to an hour. An informed consent form (Appendix E & F) was given to each participant before the interview. The contents of the interview were audio recorded for transcription purposes. Classroom observations were carried out after permission was provided by schools and teachers agree to the procedure (Appendix G). Three classroom observations were conducted as the last one was cancelled due to school closure as a result of the haze situation in Singapore. Teachers were observed in the implementation of STELLAR lessons at the participating school. Content analysis of relevant documents was employed, including 1) EL Syllabus 2010 (MOE) 2) Teacher training PGDE (Pri) Module syllabus for English and 3) Main textbooks for NIE training in PGDE (Pri) programme.

Initial permission was gained from NIE to interview the teacher educators at the institution (Appendix H & I). In order to gain access to school teachers and MOE officers, the researcher wrote to MOE which has replied and granted permission for the research (Appendix J & K). However, MOE officers declined to participate in the research and thus access to STELLAR materials was denied. After MOE granted access to the schools, the researcher then approached the school principals for permission (Appendix A). One school principal responded positively. The researcher then proceeded to interview NIE instructors (Appendix B) after informed consent had been granted (Appendix E). Next, interviews were conducted with school teachers (Appendix C) after informed consent had been granted (Appendix F). Classroom observations in schools were carried out using an observation form (Appendix D) after informed consent had been granted (Appendix G).

Instrumentation

Interviews. Seidman (2006) proposed interviewing as a necessary mode of inquiry for researchers who want to understand the significance of the stakeholders in experience in their educational experience. Therefore, semi-structured interviews were conducted and audio recorded for the participants from the different educational settings. The interview guides (Appendix B & C) for both the NIE instructors and teachers' interviews were modified and adapted from teacher

perspective studies by Alwan (2006) and Heineke (2013) and accessible information about STELLAR from MOE (2008) website. Interviews were held during the first two weeks of the last school term in Singapore and only one interview was scheduled for each teacher participant to minimise disruption to the teachers' schedules. Similarly, one interview session was conducted for each NIE instructor who agreed to participate in the study.

Observations. In addition to interviews, classroom observations are a way of gathering inferences from the participants' perspectives (Maxwell, 2005). In order to code the observation data of the interactions in the classroom, audio recording was used after obtaining permission from the relevant participants. The observation form (Appendix D) was modified from a perception study by Hawkey (2006), and required details of the lesson activities and materials used. In addition, as the main observation is the employment of STELLAR strategies by the teachers, the researcher added a coding section for STELLAR strategies that were stated at the MOE STELLAR website (MOE, 2008).

Analysis of relevant documents. The interviews and observations were complemented by data analysis of relevant educational documents. In the qualitative analysis of relevant documents, Bryman (2006) states that content analysis is the most common and thorough way to explore emerging themes. Thus, content analysis was used for the following documents: 1) EL Syllabus 2010 (MOE) 2) Teacher training PGDE (Pri) Module syllabus for English 3) Main textbooks for NIE training in PGDE (Pri) programme. The English Syllabus document and NIE textbooks were analysed for any explicit mention of STELLAR strategies. However, there was no access to the detailed PGDE module syllabus due to copyright issues thus no analysis was conducted.

Data Analysis

Interviews. All interview data were recorded and transcribed completely. For the school teachers' interview data, the researcher employed an inductive approach and identified reoccurring key points in order to generate thematic categories. The analytical process followed a

three-step procedure (Boeije, 2002): 1) Comparison within a single interview, 2) Comparison between interviews within the same group, 3) Comparison of interviews from different groups.

Initially, the interview transcripts were subjected to open coding and the researcher studied and compared all sections of each interview to identify relevant themes. When more than one fragment of the interview converges to one theme, then further comparison ensues to become the basis for that category. For example, one coded fragment from T2's interview was "not assessment mode". Subsequently, the transcript included fragments such as "four pictures", "pass writing exam" and "reading comprehension with open-ended questions". Since all these fragments have a close link, they were all linked under the category of "assessment".

Following this phase, the interviews were compared within the same group of participants – teachers and NIE instructors. Across the interviews, the researcher searched for similarities and differences among the participant transcripts. The participants' responses might fit into similar categories but may differ in their descriptors. An example would be "assessment". Unlike T2 as discussed in the previous paragraph, T3 responses include "additional school packages are exam-based application style" and "some text types are not applicable for examination".

The concluding stage of the interview analysis was to compare the transcripts of the teachers and NIE instructors. Cross-comparison was utilised to identify any similar or different comments from both groups of participants in the various categories.

Observations. Classroom observations were analysed for the adherence to STELLAR lesson plans and the instructional decisions or modifications of the teacher in the interpretation of their shared perspectives.

Analysis of relevant documents. The two main texts used by the student teachers in the PGDE (Pri) programme were analysed for the explicit mention of STELLAR strategies or principles. Explicit linkages to the EL syllabus documents were also analysed and checked for relevancy.

Limitations

Although the study design has been planned based on previous research, there were still some limitations. First, the results in this study cannot be representative of the entire teacher population in Singapore due to the small number of participants from the same school. Second, an important group of participants of the study, members of the Ministry of Education STELLAR team, declined participation. Therefore, the findings may not comprehensively cover all details of STELLAR.

Delimitations

The present study only considered beginning teachers as participants for the research as they were requested to relate their experiences based on their NIE training. However, more experienced teachers were not included in the current study. While more experienced teachers may have had greater insight into the practical implementation process of STELLAR, the longer they would had been in service, the less they may have remembered about their teacher training programs which could have affected the data accuracy of the current study.

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Results

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The investigation into teacher perspectives of the STELLAR implementation in their schools and the relevant support necessary for them to further facilitate this process were conducted through interviews and classroom observations. The findings from four interview responses and three classroom observations are reported in this section. To protect participant confidentiality, teacher respondents were referred to as T1, T2, T3 and T4 while the instructors were N1 and N2 in the results. Further information about their teacher training modules at NIE was obtained via interviews with the instructors from the programme. The course books used for the programme and the EL syllabus 2010 were also analysed for any explicit reference to STELLAR.

Teacher Interviews

In the process of analysing the teacher's transcripts, a few themes emerged regarding their concerns about their English language teaching and the training received at NIE and the support structures they have at their school. As the researcher had to explain the details of the study and obtain consent from the respective teachers to participate, the first meet-up was in the last week of the previous school term. After that, both the interview and observation were conducted on the same day for each teacher in the new school term.

At the beginning of the interview, each teacher was asked to share some general information about their background and the class that they were teaching. A similarity found was that these teachers graduated with Science degrees. All four teachers had contract teaching experience, ranging from six months to one year in the current school prior to their NIE training. The teachers' formal teaching experience ranged from nine months to three years. The classes they teach are from Primary 1 to Primary 4. For convenient reference, T1 will be the teacher participant teaching Primary One and T2, Primary Two and so on. All classes consist of mixed ability pupils with the exception of T3's class, which is high ability. In Singapore, some schools have banded their pupils from Primary Three onwards to facilitate teaching and learning, but the criteria for the classification is usually not known to public. The only exception would be at Primary Five where pupils face subject-based banding based on results from school-based assessments at Primary Four and study subjects at either standard or foundational levels. However, as our sample does not consist of classes beyond Primary Four, no further discussion is necessary about ability streaming.

Classroom Observations

T1's observation was cancelled due to unfortunate circumstances where pupils could not attend school on the scheduled day as there was nationwide school closure. Another observation could not be scheduled as the data collection time was limited.

T2's observation was demonstrating Shared Book Approach at the lower primary level. The teacher started with introducing a Big Book to the class. The first step included teacher prompts to bring attention to the basic features of the book such as the title and author. After this reading process, the teacher then moves on to explicit teaching of language items with follow-up activities (MOE, 2008). This approach is an adaptation of bedtime reading, an enlarged version of the story book is used for ease of reading together as a class (Wong, 2010a). As explained, the purpose of the first reading was to arouse the pupils' curiosity so that they would be interested enough to utilise their experiences in predicting the sections of the story. During the lesson, the teacher also encouraged the pupils to contribute their knowledge on the topic shared so that they could learn from one another. As the story was an information text type, pupils could expand on one another's contributions and learn together as a class. It was apparent that the pupils were familiar with SBA as one of them asked about the missing information of an illustrator for the story. T2 explained that the story graphics included only photographs and not drawings thus resulted in the missing information of an illustrator, which was usually stated on the book.

In the sixty minutes lesson, T3 spent about half the lesson on supported reading and the other half for a group activity related to the unit text. During supported reading, the teacher went through the text with the pupils, and used coloured slides to show segmented sections of the text. The pupils read the segmented sections of the text silently and the teacher stopped at predetermined points to ask prediction questions. This process is similar to the Directed Reading-Thinking Activity (DRTA) strategy as explained in Wong's (2010a) textbook used at NIE. The group activity thereafter was to ask the pupils to think of a continuation to the story that was shared during this lesson. First, each pupil was given a hard copy of the story and then twenty minutes to discuss, brainstorm and write out a short continuation of the story in their groups. The lesson ended with the pupils sharing their part of the story.

T4 conducted a lesson that showed supported reading for a non-fiction text. She used the KWL table prior to introducing the text. As described in Wong (2010a), the KWL table is a type

of graphic organiser that "help readers think through ideas while reading" (p.135). In addition,

KWL also acts as a visual aid to assist comprehension of the text and connects the reading and

writing process. In this lesson, T4 elicits pupils' prior knowledge by asking the pupils to

brainstorm the first two columns (what you know, what you want to know) of the chart in groups.

Then, the groups take turns to contribute their discussions to a class KWL chart. As shared in the

post-observation interview, the number of questions she posed in this lesson was lesser than what

has been stated in the STELLAR lesson plans. She felt that there were too many suggested

questions to assess their understanding and pupils will get bored during the lesson if she asked all

of those accordingly. In this lesson, she also modified the teaching slides to add in more guidance

for the vocabulary that she deemed difficult for her students and explained them as she went

through the process of supported reading. A large majority of the lesson time was teacher-fronted

as the process is closely guided by the teacher. In addition, as the vocabulary to be explained was

more than a usual fiction text, time was also spent to relate the words to the pictures provided

together with the STELLAR resources. Throughout the lesson, T4 chose to toggle between the

PDF text file and the PowerPoint picture slides. Although this seemed to be disruptive to the

reading process, T4 felt that explaining all vocabulary at this section of the lesson was the most

appropriate.

NIE Instructor Interviews

The first instructor who consented to the interview was teaching the module

"Communication Skills". Though all student teachers have to undergo this module at NIE, the

contents of the module were not closely related to the purpose of the research and thus would be

excluded in the analysis. The other two instructors, N1and N2 are both experienced instructors at

NIE and have taught the two main English pedagogical modules in the programme. The aim of

the interviews was to find out more about the module content and the exposure of STELLAR in

the teacher training programme at NIE.

Text Analysis

From the NIE instructors' interviews, there were two main course books used for the PGDE course coupled with suggested additional readings. Thus, these two texts were selected for text analysis. The first text – *Developing Literacy in the English Classroom* is a combination of chapters written by "highly experienced education professionals at the National Institute of Education" (Wong, 2010a, back cover). Although there were different authors, the chapters seemed very much aligned to the general purposes of introducing the English Language teaching pedagogy and principles in the Singapore context. When analysed for the explicit mention of STELLAR and linkages to curriculum, the text has 30% explicit mention of STELLAR while the other 70% consists of sections such as explanation of general English language teaching approaches, pedagogical principles, references and recommended readings. The other text that was only used for the Teaching Reading and Writing module was *Teaching Text Types in the Singapore Classroom* (Wong, 2010b). The analysis showed a well-structured course book and the various genres were linked explicitly to both EL Syllabus 2001 and 2010. In summary, both texts are contextualised for the Singapore English language education and highly relevant for the student teachers.

For the 2010 English Language (EL) Syllabus, STELLAR was mentioned in only one section of the text document where the learning outcomes are elaborated (Ministry of Education, 2010). As stated in the MOE press release, the focus of the 2010 EL Syllabus is "effective teaching methods that engage and motivate our students" (MOE, 2012, para. 1) and STELLAR is the programme that supports this emphasis.

Understanding of STELLAR

Teacher Interviews. The first research question sought to find out more about the teachers' understanding about STELLAR and the principles behind the programme. Two teachers referred to the materials of the STELLAR guidebook and texts used during lessons. T1 stated that STELLAR is "a very structured way of guiding teachers…very beneficial even for new teachers".

Similarly, T3 mentioned that "STELLAR would be like a guidebook for teachers on how to teach the four components in English and it is aligned to the syllabus". On the other hand, the other two teachers commented that STELLAR is a teaching approach. T2 felt that STELLAR's general teaching approach is bottom-up, with the provision of environment and experience for pupils to use English. As the pupils learn English, they then learn the grammar rules incidentally. The teacher corrects the pupils' usage appropriately and they will learn more and more English rules. T4 explained that STELLAR introduces big books or texts and using that as a guide, children learn different grammatical structures or vocabulary where they can apply in their writing and worksheets so it's a text-based approach.

Classroom observations. Even though the teachers used various terms to define their understanding of STELLAR, this did not seem to have any significant impact on how the lessons were conducted. There were no apparent differences in the way teachers carried out the strategies according to the STELLAR website descriptions. For both Shared Book Approach and Supported Reading, the corresponding resources were used and the teachers observed referred to the teacher's guide for the teaching procedures.

NIE Interviews. From the interview data of the NIE instructors, the understanding for both of them was similar. For N2, STELLAR was a program in which teachers are able to follow procedures listed to conduct their English lessons in schools. She elaborated that the STELLAR lesson plans work on the assumption that teachers already understand the "whys and hows" of the strategies. Thus, her understanding was that NIE will play the role of explaining the rationale of the teaching strategies to the student teachers. N3 referred to STELLAR as a "research based literacy program using a repertoire of strategies and authentic text". She also commented that STELLAR is an improvement of the previous literacy programmes and is very comprehensive.

Text Analysis. From the NIE text, STELLAR was referred to as "an English language package" (Wong, 2010a, p. 9) and a programme initiated by CPDD/MOE for the teaching of English in primary schools" (p.315). As this text was published in 2010, the author also wrote

that this programme will "eventually cover all the six years of English Language teaching in the primary school" (p.9) even though at the time of publication, only the lower primary levels were conducting STELLAR lessons.

Support

The second research question was to discern significant contextual factors that affected their perceptions of the STELLAR programme included in their schools' English curriculum. The findings from the different data sources are elaborated in the following sections.

Teacher interviews. From the teachers' responses, the support structures that existed for the implementation of STELLAR were categorised as follows: Personnel, time and resources.

Personnel. In the teachers' interview data, the following personnel were mentioned when asked about their support system: STELLAR Coordinator or Mentor, Mentor-Mentee Scheme, MOE workshop trainer, experienced colleagues, level teachers and members of the English Department in the school. More details of each personnel shall be elaborated upon in the next few paragraphs.

The STELLAR Coordinator/Mentor was credited by three of the four teachers as the person to go to for support. In fact, two teachers also commented that the STELLAR coordinator also helped to guide the contract (untrained) teachers in the school to a large extent in the explanation and understanding of the strategies. To T3, the STELLAR coordinator was a "highly experienced teacher and is competent in other language teaching strategies in addition to the ones in STELLAR". Various terms were used to describe the STELLAR coordinator's role in school such as "advisor", "vetting", "quality control", "refresher", "shared strategies".

In the current school, there is also an existing Mentor-mentee scheme where beginning teachers were paired with a more experienced teacher and two teachers commented about their mentors. T3, who is the least experienced among the four teacher participants, commented that she hoped to be able to observe her mentor in action although she has not explicitly expressed her wish to the school yet. In addition to being observed by her mentor and feedback thereafter, T3

hoped that she was able to learn techniques by observing experienced teachers' English lessons. She stated "I would prefer to at least see a lesson by the senior teachers, maybe by my own RO (reporting officer who is the evaluating officer responsible for performance management of a teacher in school) would be great as well". She further elaborated that this lesson demonstration would help her greatly as a model for strategies application and also the adaptation of lesson plans. In contrast, T1 mentioned that beginning teachers could go over to their assigned mentors to observe their lessons. This complements the process of the beginning teachers being observed and provided feedback by the experienced teachers. The difference in findings may imply that the least experienced teacher, T3, may not be too familiar with the school mentor scheme and the low status of a young member of the school community may have prevented her from initiating the request to observe a more experienced teacher in the school community, one with a higher status.

There was only one teacher who mentioned that non-appraisal classroom observations were carried out after her STELLAR workshop training, and that the MOE trainer provided her with verbal feedback in the implementation of STELLAR strategies. The MOE workshop trainer supported T4 in her implementation of STELLAR strategies and went to school for three post-workshop observational visits. After the workshop, T4 was given two weeks to complete the two observations. In her sharing, T4 commented that the observations were highly stressful due to the time constraints and her own planning of the scheduled observations. She requested for all the three observational visits to be completed in the following manner: two in the first week and one on the Monday thereafter. Initially, T4 was unsure about the nature of the observations when asked, but after further prompting by the researcher, T4 stated that the observations were non-appraisal. T4 also mentioned that some other colleagues who attended the same workshop postponed their observational visits as their lesson timings could not match the STELLAR mentor's schedule. In retrospect, T4 shared that these observations needed an extensive amount of preparation in the midst of her usual teaching schedule. In her opinion, she felt that she had to clearly and explicitly show what was taught in the workshops as expressed in the following

comment: "we know that they are looking out for this so I mean in a way we know that we have to do things a certain way".

In addition to the above-mentioned personnel, level teachers, experienced teachers and members of the English Department were also part of the support structure. A collegial relationship is evident in the school as teachers shared that they were able to discuss with the other teachers about teaching strategies and ideas. This process was further supported with structured time periods in the school schedule for professional development and reflection and this concept shall be further elaborated in the following section.

Time. The teachers' interview data also revealed allocated time for teachers' professional sharing and development. The platforms mentioned by the teachers were Timetabled Time (TTT) and also weekly meetings. An hourly "timetabled" time per week was one of the initiatives by MOE to allow teachers the additional support structure in order to "reflect, discuss and plan their lessons" (Ministry of Education, 2005). Two teachers shared that they could learn from their level teachers during "timetabled" time and this was another professional platform for them to hone their teaching techniques. In addition, in the school-wide weekly meeting sessions, certain professional development activities are organised. All these help the beginning teachers to support their English Language teaching.

Resources. Resources in the school were easily accessible and comprised of the downloaded STELLAR guide, PowerPoint teaching slides and customised learning sheets. All teachers mentioned that the school' STELLAR packages were readily available when they started their official teaching in school. Thus, there was no need to refer to the original STELLAR packages in the STELLAR portal as often.

To gather more specific perspectives about the STELLAR programme, teachers were also asked about "the aspects of STELLAR that they found most useful." T1 explained that with the STELLAR package, she was able to deliver content because everything (the STELLAR procedures) was stated very clearly in a PDF file and they are very practical in terms of time.

Similarly, the different questions listed in the lesson plans for STELLAR that was provided was the most useful for T4. T2 felt that the big books used for the lower primary pupils are "physically big enough, and the stories and colours, are very exciting for the children". In addition, the learning packages were useful because "those help us to assess whether the children learn something". On the same note, T3 also referred to the STELLAR texts as a useful resource. They were "progressive in terms of difficulty, including more vocabulary, complex sentence structures and dialogues and consists of different contexts and genres". Thus, she felt that these texts provided good exposure for the pupils in their English lessons.

On the contrary, teachers also expressed a few areas of concern when using the STELLAR resources. T1 felt that STELLAR resources are "not enough". She explained that she created some Powerpoint slides on her own initiative in order to supplement her teaching. This was done as she needed to review the previous grammar items in addition to the relevant ones from the current story. For example, the pronouns that were supposed to be taught were "him, her and me" but in the current story, only "her" was mentioned. In addition, she also created a board game, so that her pupils can learn through playing. This was done according to the pupils' learning pace and allowance of time. For T3, as her class was higher ability, she felt that the grammar and vocabulary components were too basic and needed to extend their learning to a higher level. For the supported reading process, she asked more inferential questions than literal questions. T4 felt that grammar and vocabulary items are too general, and the suggested activities are not very group based. Her worry was that the activities might not be as engaging as they are class-based. Furthermore, she felt that the Powerpoint resources could be improved. In her opinion, the non-fiction texts should include slides that could help to explain the vocabulary terms instead of just visual aids that supported the reading process. To her, the preparation was quite tedious in the midst of her workload.

All teachers revealed that they were involved in the schools' review process of the STELLAR learning packages every semester in their respective levels. From the interview

responses, teachers discussed the necessary improvements after every semester and distributed the workload among their level teachers. However, for T3, she was tasked to work with the English Head of Department to review the current learning sheets for the level. She commented "currently I'm doing the grammar mapping so that we can include more grammar exercises in this package so everything will be one worksheet instead of having it in separate forms. More grammar practices and then it will be aligned closely to the test format. So you will see more MCQs and Fill in the blanks and so on". When asked about her impression of this review, she described the process as "very tedious work because I have to map the direction from MOE to our school and then the STELLAR expectation as well but thankfully it is only grammar".

Modification

       Teacher Interviews. An emerging theme from the interview data was modification of resources. All teachers had a common understanding that they were able to customise their lessons accordingly to the pupils that they were teaching for that current year. All teachers interviewed modify their materials in various ways for different reasons.

       Students' needs. T1 felt that the STELLAR instructional package had to be supplemented with her own resources and she adds on her own Powerpoint slides to "test the students' understanding". In addition, she creates language games to engage her pupils in the lessons and also uses the slides for teaching and revision of language items. Time was a deciding factor that influenced her decision of additional activities to her lessons, in addition to the ones suggested in STELLAR.

       T2 felt that STELLAR includes writing skills but the school's writing package is still needed to meet the demands of the writing examination (four pictures). In order to meet these demands, he felt that pupils had to be exposed to proper composition formats.

       T3 expressed a need to modify and differentiate the STELLAR resources as she perceived STELLAR resources as the "barest minimum" for her class that should be adapted to their needs. Thus, she wanted to supplement the writing section as her pupils are of high ability and she

created higher-order tasks to meet their leaning needs. However, in the interview she also voiced her concerns that more training was needed for her to learn how to adapt the resources for her students.

T4 commented that the grammar and vocabulary sections of the STELLAR packages are too general and the some activities did not meet her expectations of student engagement. She also responded in the following manner: "I personally feel that the STELLAR worksheets are not really sufficient to drill them into learning". She also felt that the teaching slides were not comprehensive as they only included pictures for supported reading. In particular for non-fiction texts, she felt that students should be given the definition of the vocabulary together with the picture slides to provide sufficient scaffolding. Therefore, she modified the STELLAR picture slides to add in definitions of difficult vocabulary to assist her during her supported reading process.

Institutional demands. With the support structures in place, however, all the teachers also raised the concern of 100% completion of all resources provided by the school. The teachers also revealed that the completion of all the learning packages was the expectation regardless of the type of pupils they received every year. T2 shared that there was no need to make any decisions regarding the selection of learning sheets. There is the consequence of book check process, which is part of the evaluative process by the management to access the teachers' teaching. Incomplete worksheets may also invite queries from pupils' parents, and thus may affect the teacher's accountability. T3 mentioned that the lower ability pupils also use the same learning sheets but teachers can choose to modify even though they still had to ensure completion of all worksheets.

In this school, there were various forms of supplementary resources highlighted in addition to the STELLAR packages – in-house created phonics packages, comprehension packages, writing packages, visual text packages, commercially produced grammar book, synthesis and transformation book. For T1 and T2, these teachers had to manage phonics,

comprehension and writing packages. T3 shared about a grammar book, comprehension and writing packages. T4 had the most supplementary resources which included Comprehension Packages, Writing Packages, Visual Text Packages, Grammar Book, Synthesis and Transformation Book, Oral and Listening Comprehension Book.

From the teachers' responses, the supplementary resources increased with the pupils' levels and increasing pressure is evident in trying to complete all resources in time to prepare for assessment. From the quantity of resources, the numbers seem to correspond to the increase in sections of the examination papers for the different levels.

Assessment. Another significant reason for the modification of resources was the issue of assessment. All teachers mentioned that their school literacy packages were also customised to prepare students for their individual level assessment. From their responses, an increasing pressure of assessment is evident in the higher levels.

For T1, although she teaches Primary 1 pupils who have bite-sized assessment, grammar items that are related to the exam format are still infused into the learning sheets in order to prepare students for their weighted assessment. T1 mentioned the writing package as a platform to guide students in producing a final piece of writing independently for their final assessment based on four pictures. T2 focused on the writing packages and comprehension packages which help to prepare the pupils for their final assessment. The writing component comprises of four pictures and the school packages include the practice sheets for them to be able to produce a piece of writing independently. Similarly, the comprehension passage with some open ended questions was included in the school packages as pupils had to be ready for their final assessment. T2 mentioned that while STELLAR advocates the teaching of writing and comprehending, the school packages were also informed by the current assessment mode.

T3 mentioned that the literacy packages were customised to align certain items on the learning sheets of each unit to the examination format. For example, more grammar items will be included in the revised packages to include more multiple-choice questions and fill in the blanks.

T4 raised the difference between the purposes of writing for different units in STELLAR. For example, if the topic is relevant and the text type is highly probable for assessment, then a related composition would be produced. In contrast, a text type such as a recipe is deemed as not applicable for examination and given less importance for writing. In addition, school-based oral and listening comprehension are deemed essential as they are "exam-based application style".

NIE Instructors. N2 shared that "it is officially stated schools are free to make adaptations and changes up to a certain percent of it." This process is encouraged as learning needs differ across schools. In addition, this also encourages more ownership and usage of the STELLAR resources as compared to the past resources. The texts provided are also written for reading instead of purely learning purposes so she felt that the learning process becomes more engaging. In terms of assessment, N2 acknowledge the fact that assessment is changing gradually and moving towards as close alignment to the objectives of the STELLAR programme as possible. To her, this is definitely a positive change as teachers' classroom behaviour would then change accordingly in response to the assessment.

Training

NIE. To address the third research question, the researcher then enquired about the teacher participants' training experiences in NIE and other training opportunities related to STELLAR after their graduation from the PGDE programme.

Teacher interviews. In supporting the English language teaching strategies in STELLAR, all the teachers felt that the NIE training modules – *Teaching Reading and Writing* and *Teaching Oral Communication* were relevant and useful. Regarding the relevancy of the modules, all four teachers considered themselves better equipped to teach in schools after their training in NIE as STELLAR strategies were taught to them.

T1 revealed that she was exposed to different STELLAR strategies and she gained a better understanding of "what exactly is STELLAR" and "how is it different between the upper

primary and lower primary" and the various text types. The demonstration lessons at NIE were useful to a certain extent in inducting her teaching process in school.

T2 felt that NIE was the training ground where he learnt the link between the philosophy of STELLAR and the different learning theories. In addition, he also felt that NIE "championed the spirit of STELLAR". However, he viewed NIE lecturers as taking the stand that modification of STELLAR resources should be at the minimum. And in his opinion, he could modify resources better if he learnt more about the core approach to STELLAR and NIE focused more about "the pure form" of STELLAR, i.e. his exposure to STELLAR in NIE was insufficient.

On the other hand, T3 felt that the focus of the training was more on reading and writing compared to oral communication and the reason given by her NIE tutor was that listening and speaking skills were comparatively more difficult to teach. Thus, she also has less confidence in teaching listening and speaking as compared to reading and writing. Demonstration of the different strategies was also shown at NIE but application in the real teaching situation differed.

When asked to describe about her NIE experience, T4 mentioned that she was introduced to the different teaching strategies such as MLEA, Readers' Theatre, SBR (Shared Book Reading). In her lessons, she was given opportunities to discuss with her course mates and experience microteaching sessions. Her response was that these sessions were useful and enjoyable in the "ideal classroom setting".

When asked about the *English Language Content Enhancement* module, two teachers found the course useful to support their current teaching; one felt that the content was not relevant to support her teaching in primary school. T1 and T3 mentioned that the content was useful as they were both from Science background in undergraduate studies. T1 felt that the grammar course allowed her to "deliver her lesson better," regardless of teaching lower or upper primary pupils. T3 commented that the course was of content upgrading nature and "not so much related to pedagogy and curriculum" but she appreciated the opportunity to learn more about the language. However, both teachers also shared that the course was too intensive and was

completed within a short duration. This resulted in an inability to retain the knowledge learnt and they still have to frequently refer to grammar books for any clarification before teaching certain grammatical items. T4 thought that the grammar content was "good to know" but the course was "not easy", "very abstract" and "not very applicable" in her context of teaching in a primary school.

In their teacher training programme, the teachers also identified some areas of concern. First, all teachers appreciated the opportunities to try out the strategies during NIE lessons. T1 commented that the strategies modelled at NIE were taught by assuming the pupils with the highest ability and it is very different when it comes to the real situation in schools. She felt that creating opportunities for observations in real classroom situation during her course of study will be more beneficial. T2 mentioned that without actual students to try out the strategies when he was going through the reading and writing module, it was tough to visualise the actual situation. T3 felt that although the strategies were taught in NIE, but as she only practised implementing in a model situation with her classmates pretending to be primary school students, she still had to customise the strategies when she started teaching her own class and this was steep learning curve. T4 felt that micro teaching in an ideal situation in NIE gave her first-hand experience about how the strategies should have been implemented.

Secondly, there were concerns that the NIE PGDE course was too short and compact. T1 commented that the two modules were conducted in a time-tight situation and a lot of information was cramped into her period of training at NIE. For T1, the exposure to STELLAR was described as a "touch-and-go" experience as she felt that the training had been conducted in a "time-tight" situation. For example, for Shared Book Approach, T1 recalled attending only one or two demonstration sessions of the strategy for the lower primary and felt that the course was too "cramped." She also cited another example of having to create an assessment for an assignment for the Teaching Oral Communication module and realised that experiencing the actual teaching ground was more practical and useful. This was due to the fact that she could decide her own

pupils' profile when she was writing her assignment but in reality, the mixed ability classes required her to learn on the job. T2 felt that every time a new strategy was taught, the assignment was due a few weeks later. Thus, there was insufficient time to fully grasp the concepts before proceeding to the next. He would have appreciated more time between the course assignments.

Another concern raised was that NIE taught STELLAR strategies, but not how to use STELLAR guide. T3 felt that NIE did not teach the way to use the STELLAR guide, thus resulting in her having to read on her own before her lessons in school and adjust the lessons accordingly to her students' needs. This was again a difficult task for her as a beginning teacher.

In comparison to the other three teachers, T4 did not feel that her NIE training required any areas of improvement. From the analysis of her responses, this may be due to her belief that her teaching competency has to be developed in tandem with her actual classroom teaching experience. With more practice and support, she believes that this was more important in honing her teaching skills.

In-service. Out of the four teachers, only two had the opportunity to attend STELLAR-focused training workshops conducted by MOE after starting their formal teaching in schools. T3 attended a workshop conducted by the gifted branch of MOE and she was sent to attend this workshop as she was teaching a high ability class in the current year. There are two scheduled sessions but at the time of the interview, T3 had only attended one as the next one was scheduled in November. From the workshop, she learnt that the "strategies are a bit different" and received samples of the modified guide. Although the sample lesson plans were for Primary 4 pupils, she was keen to try out with her pupils by modelling the activities based on a Primary 3 text.

T4 attended a workshop conducted for upper primary teachers and the STELLAR strategies were taught in a series of six workshops. The strategies included supported reading, KWL, writing, assessment, retelling and differentiated instruction. She commented that some of the strategies overlapped with the training she received at NIE: KWL, WPC and SR. However, she could see that these workshops emphasised "more in-depth application" for the upper primary

pupils and this was in contrast to her NIE training where the application for all levels were taught. In terms of content, T4 expressed that it was "very heavy" which consisted of lectures, group activities and sharing with fellow course mates. The workshop allowed to experience the strategy from the pupils' perspective and provided a more detailed lesson plan and resources as compared to the ones she used in school

NIE instructors' interviews. The module content at NIE is highly contextualised to prepare teachers to teach in the local primary classrooms. N1 shared that a high emphasis is given to the rationale of English language teaching strategies. N2 mentioned that adaptation of materials is an area of concern for student teachers. There was also feedback that some teachers could not link the STELLAR programme to the strategies they learnt in NIE when they started formal teaching in schools. The course resources used for the PGDE programme is also comparatively lesser and more condensed than the other teacher training programmes in NIE. Lastly, both instructors mentioned that the PGDE programme has to function within a short time frame and there needed to be priorities in the design of the teacher training programme. However, N2 expressed that the short duration may affect some teachers' confidence in applying the strategies that they have learnt. Furthermore, adaptation of resources or differentiated instruction was also not included in the one-year training as they had less priority than the modules in the current PGDE curriculum.

Discussion

The findings of teachers' perspectives of STELLAR implementation display a complex interplay of various factors. The results of the investigation demonstrate that teachers' perspectives influenced their classroom behaviour in the implementation of STELLAR in multiple ways. The investigation into the support structures and training programme revealed a well-planned programme that was implemented nationwide. In a most recent publication, Pang, Lim, Choe, Peters and Chua (2015) elaborated on the factors that led to the successful scaling up

of STELLAR at a system level in Singapore. Their paper is significantly relevant in the current study and shall guide sections of the discussion.

Understanding of STELLAR

The findings could suggest that STELLAR implementation has been successful as shown by the understanding provided by the data sets from the study. Although there was no mention of any STELLAR principles that was one of the initial objectives of the first research question, the lack of information did not seem to have any significant impact as shown in the classroom observations. Teachers were still confident in conducting the lessons using the recommended STELLAR strategies. Even though there were slight differences in the use of terms from the various data sources, the different aspects of the STELLAR program had been covered.

As the main users of STELLAR, the teachers focused on the materials that they used in their English lessons and also the recommended pedagogy. The differences in terms may be due to the roles of the various interview participants and purposes of the sources. For example, the NIE instructors have a common understanding that STELLAR is the programme to be conducted in the local primary schools and there seems to be clear communication between MOE and NIE on the details of STELLAR. In addition, the descriptions provided by the instructors are aligned to the information written in Wong (2010a) and the 2010 EL Syllabus. This alignment shows that STELLAR has been successful in providing a common platform for the understanding of a nationwide initiative.

While there were varying views from the interview data that STELLAR is a guide, teaching approach or programme, Pang et al. (2015) clarifies that "STELLAR was positioned as a national curriculum" (p. 110). In retrospect, STELLAR is not an entirely new programme as the researchers explained that its pedagogical principles were largely from the REAP programme that MOE implemented from 1985 to 1991. In comparison to REAP, there is much more support purposefully provided in order to scale up the STELLAR implementation process. Thus, the close

tripartite relationship among MOE, NIE and schools is shown in the alignment of the understanding of STELLAR in Singapore.

Further recommendations in this aspect would be to explore if the teachers are accepting this innovation at the surface level or are willing to become active change agents in the implementation process. From their responses, they seem to indicate the knowledge that STELLAR is the curriculum to be carried out in their English lessons. The sample for this study consists of beginning teachers. Teachers seem to accept that the STELLAR curriculum is here to stay but whether or not the ownership has been transferred from the STELLAR team to the teachers depends on the teachers' sustained ability to adapt and accommodate their teaching to the pupils they teach each year.

Support

In response to the contextual factors that supports the STELLAR implementation process in school; all the teachers had responded positively. Teachers were aware of the expertise of the STELLAR Coordinator/Mentor in school with regards to issues concerning STELLAR. Pang et al. (2015) explained that the STELLAR Teacher Mentor Scheme existed to equip STELLAR-trained teachers from every school to become "ambassadors for the STELLAR curriculum" to create "buy-in" (p. 114). This scheme was also created in fulfilling the sustainability goal of innovation ownership transfer – from the STELLAR team to the teacher mentors. Other scholars have also supported the mentorship scheme in supporting the needs of beginning teachers (Hobson, Ashby, Malderez & Tomlinson, 2009; Wildman et al., 1989). However, as each school has only two to three STELLAR mentors, MOE could consider how to further provide support if these mentors leave service or transfer to another institution. Re-training or reselection of other experienced teachers may help to sustain the existence of these experts in schools.

In addition to the STELLAR Teacher Mentor Scheme, the beginning teachers received the support of their mentors in school. This has been possible due to the MOE initiative to reduce the workload of senior teachers in order for them to mentor beginning teachers (Ministry of

Education, 2005). In this school, the teachers have indicated that the mentor-mentee relationship supports them in their English language teaching. However, these beginning teachers may prefer to have more opportunities to observe their mentors demonstrating the STELLAR lessons in similar contexts. This could provide the beginning teachers with more confidence when teaching their students.

Although teachers appreciated the professional development time given to them to discuss pedagogical issues, the scope of the interview data could not reveal if these discussions were translated into their classroom practices. Teachers could be given scheduled time to improve their quality of teaching collaboratively. However, as Rudduck (as cited in Rubdy, 2010) indicates, teachers could fall back to their past practices and routines too easily in the comfort of their private classrooms.

In the aspect of materials support, teachers were contented with the basic provision of the STELLAR resources in school. Pang et al. (2015) mentioned that all schools were provided with similar materials for the STELLAR curriculum and online availability meant that all teachers had identical access to both digital and print resources. Pang et al. (2015) stated that each big book or text has been complemented with an in-house set of guidelines created by MOE curriculum planners. Resource sheets supplemented every unit of guidelines while audio and video resources were also provided where appropriate. However, these beginning teachers were provided with the school STELLAR packages when they started off their official teaching and were not involved in the initial compilation of learning sheets and thus were unfamiliar with how closely school package adhered to the original STELLAR materials.

In the interview, T3 shared that she was involved in the mapping of grammar items in order to align the STELLAR learning sheets, EL Syllabus and the school assessment. With ample guidance and support, this process may help broaden her perspectives of the STELLAR curriculum. The involvement of teachers in this mapping process could encourage them to gain more ownership of the innovation. Rubdy (2010) suggests that teachers should be explicitly

informed about the logic and theory of the innovation in order for them to "feel intellectually in control". This psychological perception may help to strengthen the teachers' support of the innovation implantation process.

Although all teachers mentioned that they are accountable for completion of all the learning sheets and additional materials that the school has prepared for the students, they are still mostly inclined to adapting the resources according to the level and ability of pupils they are teaching for the current year. As mentioned by T3, her high ability class required her to constantly brainstorm on how to modify the existing STELLAR packages to meet her pupils' learning needs. This is also a challenge identified by the STELLAR team – the teachers' feedback of adapting curriculum to the low and high progress pupils' needs (Pang et al., 2015). In Silver et al. (2013)'s study, teachers attributed their modifications to their students' needs and this supports the current findings from the teachers' interview data. This furthers extends the intention of the STELLAR team, for teachers to differentiate their lessons with reference to the teaching methods in STELLAR, to allow for an "incremental evolution of the innovation to more appropriately meet local needs" (Pang, 2015, p. 117).

Assessment

A common challenge illustrated by the teachers was that no matter what instructional decisions in the classroom, the constant awareness of their students' familiarity with school assessment format is an unavoidable responsibility. Pang and her colleagues (2015) identified the Singapore's school examination culture as one area of concern and this in turn influences the teachers to a large extent as they are in a dilemma in meeting both the demands of STELLAR curriculum and the reality of assessment. Chapman and Snyder (2000) also contends that the teachers' perceptions of the linkages between their instructional practices and assessment will influence their classroom behaviour, not just solely the existence of high stakes examinations.

In particular, the writing component was discussed by all teacher participants. This is supported by Tan (2011)'s article on assessment reform in Singapore where the backwash effect

of examinations, together with time constraint often leads to a higher emphasis on product of writing as compared to the process of writing. Through her survey of English teachers, Chew (2006) also found that many teachers switched from the process writing mode to examination-directed writing in the second semester of the school year. The teachers attributed their behaviour to the large class sizes and exam-oriented culture.

Addressing this concern, the writing component of the annual primary school examination - PSLE has been changed in 2015. The first batch of pupils who have experienced six years of the STELLAR curriculum has taken this revised format of the national examinations. To correspond to changes brought about by the STELLAR curriculum, pupils are required to write a narrative based on one of more of the three pictures provided as compared to the past where only fixed scenarios were given (Ministry of Education, 2012). Along with writing, the listening and oral components have also been modified. Pupils are expected to give a personal response to a visual image related to the reading text as compared to picture discussion and conversation in the past. These are positive changes as teachers have more reason to change their teaching practices to match the assessment changes.

Training

To address the third research question, teachers were requested to share their training experiences in NIE in relation to STELLAR. From the results, teachers were satisfied with the learning of strategies and pedagogical principles in their course. This is evident from the teachers' responses where teaching strategies and rationales were the focus during their training at NIE. There also seems to be no indication that teachers felt unqualified or incompetent in carrying out the STELLAR strategies in their classes. Thus, this suggests that NIE's pedagogical modules in English are successful in developing teachers' competency and understanding of teaching strategies. The English Language Content Enhancement module also supported teachers' personal content upgrading and this should continue since majority of the primary school teachers may not

have prior linguistic background. Since STELLAR advocates the explicit teaching of grammar structures, teachers could use this opportunity to improve in their grammar knowledge.

According to Pang et al. (2015), the STELLAR programme has been followed through by "the same team of people" from the planning till the evaluation stages in order to "prevent misalignment and reduce the disjoint between classroom materials and the syllabus" (p. 119). For a similar reason, the resources used in STELLAR are licensed by MOE to ensure strict fidelity in implementation. However, one of the teachers requested to learn how to use the STELLAR guide during her training at NIE and not when she has already started teaching. For a beginning teacher, having to grapple with the classroom realities and having to learn how to teach at the same time is overwhelming. Thus, NIE and MOE may want to discuss on how explicitly STELLAR should be taught in NIE, now that the progressive nationwide implementation has been completed.

With regards to STELLAR-focused training workshops conducted by MOE, the teacher who attended the workshop conducted by the gifted branch shared that she would like to try out the modified lessons for her higher ability class. This also resonates with the identified challenge of how to provide more support teachers to adapt the STELLAR curriculum to meet their students' needs (Pang et al., 2015). As a follow-up to her workshop series, T4 was given feedback on her strategies implementation by the mentor from the STELLAR team and this took the form of three advisory visits that required classroom observations of STELLAR lessons. Pang et al. (2015) revealed that these mentors are specially trained retired teachers who served as STELLAR ambassadors and provided consistent standard of professional development support in the STELLAR implementation phases. Although T4 mentioned that though she had the knowledge that the intentions of these observations were more supportive than evaluative, a great deal of stress was imposed when she had to display her learnt knowledge from the workshop to a field expert. Personally, she would have preferred to supplement the verbal feedback session after each observation with a formal report about the strengths and weaknesses of her teaching.

Another aspect is the duration of the course at NIE. Teachers and instructors felt that the course duration was too short to sustain knowledge learnt and would appreciate a longer training duration. According to a recent enhancement to the PGDE programme announced in November 2015, the course will be extended from 12 months to 16 months, including an additional four weeks for both "teaching practice and deeper understanding of the concepts taught (Vimita, M., 2015). This extension may be able to address the concerns that the teachers brought up in the study and further allow more teaching experiences whereby STELLAR strategies could be tried and tested in different contexts.

Other factors

Pang et al. (2015) also elaborated on three other avenues of support during the STELLAR implementation phase in addition to the teacher mentor scheme. First, schools were identified for sustaining good practices and were recognised as "strong STELLAR schools" (p. 115). These institutions were then being offered platforms to share at MOE events and as exemplary models for visiting delegations. Second, the setting up of a STELLAR Centre serves as a venue where "people and resources for efficient allocation of resources and professional development" (p. 115). Lastly, the STELLAR team ensured that parents were kept informed in the implementation process and provided online information resources. The success of the scaling up of STELLAR to the current nation-wide implementation also depended on the support of "MOE's senior management" (Pang et al., 2015, p. 118).

<div align="center">

Educational implications

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The findings revealed that all the teachers supported STELLAR as the curriculum in their school. However, it is apparent that teachers are at varying levels of confidence in using the resources provided and they are also facing difficulties in balancing the exam-oriented culture in Singapore and implementation of the STELLAR curriculum.

Thus, in order to better facilitate this process of implementation, beginning teachers should have perseverance in trying out the strategies and striving to improve through their

teaching experiences. In adapting their lessons to meet the learning needs of their students, teachers could develop increased ownership of the STELLAR curriculum.

In the teaching of writing, teachers should shift their focus to the writing process, as advocated by STELLAR. If students start to memorise the structures of compositions and model compositions just to pass the examinations, then the purpose of introducing the writing process cycle in STELLAR would be meaningless. Since the national examination papers have been revised to complement the changes in the teaching syllabus, the teachers should strive to adjust their teaching practices accordingly.

Schools have their own unique cultures but the existing support structures are encouraging and essential for the continued implementation of STELLAR. The development of a supportive and nurturing school environment depends largely on the leaders – school principals, heads of departments, level managers etc. The STELLAR team has paved the way by engaging school leaders in its implementation process and this was highly influential for its innovation to develop into an "integral part of the revised English language syllabus (Pang et al., p. 118).

For NIE, as the sole teacher training institute in Singapore, the high quality courses have been portrayed through the teachers' responses. In addition, the vibrant research community in NIE has supported the development and improvements of the teacher training courses over the past decades. The educational landscape is volatile and constant reviews of the teacher training course would benefit all teachers and students.

Although STELLAR has gone through a highly centralised process of implementation, there was a substantial support plan to help its scaling up in the Singapore school system. The Ministry of Education could continue its strong partnership with NIE and schools in order to continue the successful implementation of STELLAR. By acknowledging the challenges in implementation and gathering constant feedback, the STELLAR team has shown its professionalism in evaluating its own programme.

Recommendations for future research

Future research may be longitudinal, following teachers' development in perspectives over a period of time. In addition, a compare contrast study could be designed to gather more information about how different school environments or teachers with different levels of experiences impact the implementation of the same programme. More details on how the STELLAR innovation has been adapted in the different schools will contribute substantially to the research literature. The various stakeholders in the STELLAR implementation process such as the STELLAR Teacher mentors, Head of Department for English or students could be included as the sample participants. Since the effects of the STELLAR curriculum will extend beyond the primary school level, future research could also seek to enlighten the secondary school teachers on the impact of the curriculum in their institutions.

<center>**Conclusion**</center>

In the present study, the perspectives of teachers were examined within the context of the implementation of STELLAR and related to their teacher training programme in NIE. The findings revealed that the beginning teachers had a general consensus that STELLAR is a comprehensive and useful curriculum for meeting the pupils' needs. There is also appropriate support in their school in the implementation process. However, the teachers also felt that there were assessment demands and time constraints that influenced the way they conducted their STELLAR lessons. The training received at NIE was sufficient to transmit the rationale and knowledge of the relevant strategies to the teachers. Nonetheless, the teachers still felt that a longer training period prior to their deployment to schools would be more beneficial. These findings also highlight the need to provide continued training to teachers to ensure that they are all confident in conducting the curriculum.

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Date: XX July 2015

School Name
School Address
Singapore

Dear Principal:

As a graduate student in the International Language Department (ILE): TESOL Master's Program at Soka University, I am conducting research as part of the requirements for my master's thesis. The proposed title of my project is "Teacher Perspectives of STELLAR implementation in Singapore" and the purpose of my research is to investigate the perceptions of teachers in the implementation of STELLAR in their allocated primary schools. This study also aims to explore the relationship between the preparation of teachers in the PGDE (Pri) programme at NIE and the implementation of STELLAR. NIE has granted permission for data collection and my institution is currently reviewing my research plan through our internal institutional research ethics review system.

As my research focuses on teacher preparation and the implementation of STELLAR, I would like to invite graduates of PGDE (Pri) from 2013-2014 who are currently beginning their careers as English teachers at your school to participate in my research study in order to understand more about their perspectives of incorporating STELLAR in their schools' literacy programmes. In addition, if possible, I would also like to gain access to your school's English lesson packages in order to examine teacher participants' sharing of their implementation in schools.

Based on the methodology of my thesis research, participant teachers would be requested to schedule interviews during their most convenient time between August and September 2015. In addition, classroom observations of STELLAR lessons would be conducted in order to understand more about the actual implementation of lessons. The procedures and purposes of my research will be clearly explained and informed consent granted by all teachers prior to their participation. Taking part in this study will be completely voluntary, and participants will be welcome to discontinue their participation at any time.

If you have any questions or concerns about my research proposal, please feel free to contact me by email at e14m3204@soka-u.jp.

Thank you for considering my request, and I look forward to hearing from you in the near future.

Sincerely,

Lin Mingying
Soka University
e14m3204@soka-u.jp
1-566-1, Tangi-machi,
Hachioji, Tokyo,
192-0003 Japan

Appendix B

Interview Questions (NIE)

Background Information

Module taught:

Years of experience:

Questions

1. What are the objectives of your module? How is the course syllabus decided upon? (Alwan, 2006)

2. Tell me more about the students in your class. (Heineke, 2013)

3. What are the challenges of teaching PGDE (Pri) students? (Heineke, 2013)

4. What is your understanding of STELLAR? (MOE STELLAR, 2008)

5. Are there any components in your module that links your course syllabus to STELLAR? (MOE STELLAR, 2008)

6. What do you think is important for your students when they graduate from your course and begin their teaching in schools? (Heineke, 2013)

7. Would you like to talk about other aspects related to STELLAR that we had not discussed in this interview? (Alwan, 2006)

Appendix C

Interview Questions (Teachers)

Background Information
No. of years as EL Teacher:
Teaching EL Experience before official school allocation:
Level taught:
Class Size:
Class Type:

Questions

1. Can you talk about your English teaching experience? (Alwan, 2006)
2. What is your understanding of STELLAR? (MOE STELLAR, 2008)
3. How does your school design your English literacy package? (Alwan, 2006, MOE STELLAR, 2008)
4. Do you think you are playing (or have played) a role in the process designing your school English literacy package? How? (Alwan, 2006)
5. How do you identify the needs of your students in your English lessons? (Alwan, 2006)
6. What STELLAR activities do you think are useful/not so useful in for your students? Why? (MOE STELLAR, 2008)
7. In what ways has your training at NIE helped in the understanding and implementation of STELLAR? Do you require additional training in using the resources? Why/why not?(Alwan, 2006)
8. Are there any constraints in following the prescribed STELLAR lesson plans in your class? (Alwan, 2006)
9. What issues do you face and how do you decide how to modify your lessons? (Alwan, 2006)
10. Where do you get more information about STELLAR? (Alwan, 2006)
11. Do you refer to the metalanguage as suggested by each unit of STELLAR lesson plan and consciously use them during lessons? (MOE STELLAR, 2008)
12. What platforms are there for sharing about the implementation of STELLAR lessons? (Alwan, 2006)
13. Would you like to talk about other aspects related to STELLAR that we had not discussed in this interview? (Alwan, 2006)

Classroom Observation Form
(Hawkey, 2006, MOE STELLAR, 2008)

School	Date: Time:	Class: Level:	Teacher
Episode	Timing (mins.)	Activity, participation, materials	Comment
1			
2			
3			
4			

STELLAR Strategy

SBA MLEA LC EX SSR SR KWL RT LA WPC DI

Classroom Observation Form
(Hawkey, 2006, MOE STELLAR, 2008)

Lower Primary (Primary 1 and 2)		
SBA	Shared Book Approach	First, the teacher introduces and shares a Big Book with the pupils. In the second part, the teacher teaches language items, structures and skills explicitly, including concepts of print, phonics and grammar. There is a range of follow-up activities such as drama and art and craft for teachers to select according to their children's learning needs.
MLEA	Modified Language Experience Approach	shared experience that is linked to the Big Book that has been read during Shared Reading. The shared experience provides the context and content for the children to think and talk about, using the target language structures and vocabulary they have been exposed to in SBA. Class Writing – group writing – individual writing
LC	Learning Centres	activities are planned and differentiated for the pupils in three main learning centres – the Reading Centre, the Word Study Centre and the Listening Centre. Pupils have the opportunity to re-learn, revisit or extend what they have learnt at their own pace and in differentiated ability groups.
EX	Explicit teaching of language items, structures and skills	Opportunities to practise or study language in smaller parts are provided through direct instruction as well as targeted practice.
Upper Primary (Primary 3 to 6)		
SSR	Sustained Silent Reading	regularly scheduled, fixed period of time in which everyone in the room including the teacher reads a book of his/her choice quietly and uninterrupted
SR	Supported Reading	make predictions, read assigned section silently, discuss the text and difficult words as a whole class, led by the teacher. This strategy is usually carried out for narrative and information texts.
KWL	Know - Want to know - Learnt	helps pupils to extract information and relate it to what they already know about the topic. Teachers guide pupils to organise, access and remember information. This enables pupils to understand and follow the logic of information presented in a text, recognise information that is repeated and distinguish between main ideas and details. The teacher's support is gradually reduced as the pupils learn to be more independent in extracting information from what they read.
RT	Retelling	reading comprehension strategy that engages pupils at different levels of language: from interpreting meaning at the whole text level, to individual words and phrases and back to the whole text again.
LA	Language Activities and Sentence Manipulation	explicit instruction in oracy, word study, genre, grammar and language use at the various levels of language (word part, word, phrase, sentence, text, inter-textual).
WPC	Writing Process Cycle	focus is more on the creative aspects of writing and encouraging the voice of the young writer
DI	Differentiated Instruction	Pupils are provided with differentiated support at various points of instruction to optimise their learning

Appendix E
Informed Consent Form for Interview Participation (NIE)

Title of project:	Teacher Perspectives of STELLAR implementation in Singapore

Principal Investigator: **Lin Mingying**
Graduate Student, International Language Department (ILE): TESOL
Soka University
1-566-1, Tangi-cho, Hachioji City, Tokyo, 192-0003 Japan
Ph.: XXXXXXXX
Email: e14m3204@soka-u.jp

Advisor: **Dr Richmond Stroupe**
Soka University
1-236 Tangi-cho, Hachioji City, Tokyo, 192-8577 Japan
Ph.: 042-691-5423
Email: richmond@soka.ac.jp

Purpose of the Study: The purpose of this research is to investigate the perceptions of teachers in the implementation of STELLAR in the primary schools.

Significance of the Research Project
1. Findings from this research may help to identify any deficiencies in the teacher preparation programmes for the implementation of STELLAR.
2. This research also hopes to raise awareness of teachers' perspectives of STELLAR and the additional support they may need to better implement the STELLAR programme in their schools.

Procedures: Teacher participants will be asked to join in an interview with the researcher in order to find out more about the English teacher preparation module that they teach in the PGDE (Pri) programme. The interview will be audio recorded for transcription purposes in future. There are no personal risks involved in the study.

Duration: The interviews will take place between August and September in 2015.

Statement of Confidentiality: All information obtained in this study will be kept strictly confidential and anonymous. The data will be stored and secured at Soka University in a locked/password protected file. In the event of publication (Master's Thesis, graduate school bulletin or other academic journals) or presentation resulting from the research, no personally identifiable information will be shared. Participation is completely voluntary and participants have the option to withdraw from the research at any time of the study without any penalty.

Invitation to Participate
If you agree to participate in this research, please complete and return the following form. If you would like to receive a copy of the results of this research, please feel free to contact Lin Mingying, Graduate Student.

Thank you for taking the time to read this information.

_____   _____   _____
Participant Name   Signature   Date

_____   _____   _____
Researcher Name   Signature   Date

Appendix F
Informed Consent Form for Interview Participation (School Teachers)

Title of project: Teacher Perspectives of STELLAR implementation in Singapore

Principal Investigator: **Lin Mingying**
                          Graduate Student, International Language Department (ILE): TESOL
                          Soka University
                          1-566-1, Tangi-machi, Hachioji City, Tokyo, 192-0003 Japan
                          Ph.: XXXXXXXX
                          Email: e14m3204@soka-u.jp

Advisor: **Dr Richmond Stroupe**
                          Soka University
                          1-236 Tangi-cho, Hachioji City, Tokyo, 192-8577 Japan
                          Ph.: 042-691-5423
                          Email: richmond@soka.ac.jp

Purpose of the Study: The purpose of this research is to investigate the perceptions of teachers in the implementation of STELLAR in the primary schools.

Significance of the Research Project
1. Findings from this research may help to identify any deficiencies in the teacher preparation programmes for the implementation of STELLAR.
2. This research also hopes to raise awareness of teachers' perspectives of STELLAR and the additional support they may need to better implement the STELLAR programme in their schools.

Procedures: Teacher participants will be asked to join in an interview with the researcher in order to explore their perspectives of their implementation of STELLAR. The interview will be audio recorded for transcription purposes in future. There are no personal risks involved in the study.

Duration: The interviews will take place between August and September in 2015.

Statement of Confidentiality: All information obtained in this study will be kept strictly confidential and anonymous. The data will be stored and secured at Soka University in a locked/password protected file. In the event of publication (Master's Thesis, graduate school bulletin or other academic journals) or presentation resulting from the research, no personally identifiable information will be shared. Participation is completely voluntary and participants have the option to withdraw from the research at any time of the study without any penalty.

Invitation to Participate
If you agree to participate in this research, please complete and return the following form. If you would like to receive a copy of the results of this research, please feel free to contact Lin Mingying, Graduate Student.

Thank you for taking the time to read this information.

_____   _____   _____
Participant Name   Signature   Date

_____   _____   _____
Researcher Name   Signature   Date

Appendix G
Informed Consent Form for Classroom Observation

Title of project: Teacher Perspectives of STELLAR implementation in Singapore

Principal Investigator: **Lin Mingying**
Graduate Student, International Language Department (ILE): TESOL
Soka University
1-566-1, Tangi-cho, Hachioji City, Tokyo, 192-0003 Japan
Ph.: XXXXXXXX
Email: e14m3204@soka-u.jp

Advisor: **Dr Richmond Stroupe**
Soka University
1-236 Tangi-cho, Hachioji City, Tokyo, 192-8577 Japan
Ph.: 042-691-5423
Email: richmond@soka.ac.jp

Purpose of the Study: The purpose of this research is to investigate the perceptions of teachers in the implementation of STELLAR in the primary schools.

Significance of the Research Project
1.   Findings from this research may help to identify any deficiencies in the teacher preparation programmes for the implementation of STELLAR.
2.   This research also hopes to raise awareness of teachers' perspectives of STELLAR and the additional support they may need to better implement the STELLAR programme in their schools.

Procedures: Teacher participants will be observed implementing STELLAR lessons in their schools. The lesson will be audio recorded for transcription purposes in future. There are no personal risks involved in the study.

Duration: The observations will take place between August and September in 2015. The duration of the observation will be 60 minutes.

Statement of Confidentiality: All information obtained in this study will be kept strictly confidential and anonymous. The data will be stored and secured at Soka University in a locked/password protected file. In the event of publication (Master's Thesis, graduate school bulletin or other academic journals) or presentation resulting from the research, no personally identifiable information will be shared. Participation is completely voluntary and participants have the option to withdraw from the research at any time of the study without any penalty.

Invitation to Participate
If you agree to participate in this research, please complete and return the following form. If you would like to receive a copy of the results of this research, please feel free to contact Lin Mingying, Graduate Student.

Thank you for taking the time to read this information.

_____   _____   _____
Participant Name   Signature   Date

_____   _____   _____
Researcher Name   Signature   Date

Date: 9 July 2015

Associate Prof Angelia Poon
Head, English Language and Literature
National Institute of Education
1 Nanyang Walk
Singapore 637616

Dear Professor Poon:

As a graduate student in the International Language Department (ILE): TESOL Master's Program at Soka University, I am conducting research as part of the requirements for my master's thesis. The proposed title of my project is "Teacher Perspectives of STELLAR implementation in Singapore" and the purpose of my research is to investigate the perceptions of teachers in the implementation of STELLAR in their allocated primary schools. This study also aims to explore the relationship between the preparation of teachers in the PGDE (Pri) programme at NIE and the implementation of STELLAR. My institution is currently reviewing my IRB form and your colleague, Dr Willy A Renandya, has kindly agreed to be on my thesis committee. On the advice of Professor Renandya, I am writing to request your permission to conduct my research at the National Institute of Education.

As my research focuses on teacher preparation and the implementation of STELLAR, I would like to invite instructors who are currently teaching English modules in the PGDE (Pri) programme to participate in my research study in order to understand more about the current English language training that trainee teachers receive. In addition, I would also like to contact PGDE (Pri) from 2013-2014 who are currently beginning teachers at primary schools in order to reach out to them in their respective schools.

Based on the methodology of my thesis research, participant teachers would be requested to schedule interviews during their most convenient time between August and September 2015. The procedures and purposes of my research will be clearly explained and informed consent granted prior to their participation. Taking part in this study will be completely voluntary, and participants will be welcome to discontinue their participation at any time.

If you have any questions or concerns about my research proposal, please feel free to contact me by email at e14m3204@soka-u.jp. In addition, you are welcome to contact my advisor here at Soka University, Professor Richmond Stroupe, who is the Chair of the ILE: TESOL Master's Program.

Thank you for considering my request, and I look forward to hearing from you in the near future.

Sincerely,

Lin Mingying
Soka University

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Permission to conduct research

POON Mui Cheng Angelia (ELL) <angelia.poon@nie.edu.sg>

Fri, Jul 10, 2015 at
11:19 AM

To: "e14m3204@soka-u.jp" <e14m3204@soka-u.jp>
Cc: Richmond Stroupe <richmond@soka.ac.jp>, "RENANDYA Willy Ardian (ELL)"
<willy.renandya@nie.edu.sg>

Dear Ming Ying,

Thank you for your letter and your interest in NIE. You are welcome to conduct part of your
research study at NIE, subject of course to the agreement of my colleagues who are teaching
on the programme you are interested in.

With regard to the collection of data from school teachers, do note that you will first need to
get permission from the Data Administration Branch of the Ministry of Education.

If you have further questions, feel free to contact Dr Renandya or myself.

Best wishes,

Dr Angelia Poon

POON Mui Cheng, Angelia (Dr) | Associate Professor | Head | English Language and
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Date: 17 July 2015

Data Administration Centre
Planning Division
Ministry of Education, Singapore
1 North Buona Vista Drive
Singapore 138675

Dear Ms Teo Kie Eng:

As a graduate student in the International Language Department (ILE): TESOL Master's Program at Soka University, my student, Lin Mingying, is conducting research as part of the requirements for her master's thesis. She is originally from Singapore, and was trained and worked as a primary level teacher at XXX Primary School prior to beginning her graduate study here in Japan. Based on her teaching experience in Singapore, she is interested in investigating the perceptions of teachers regarding the implementation of STELLAR in their allocated primary schools. The proposed title of her project is "Teacher Perspectives of STELLAR Implementation in Singapore" as this study aims to explore the relationship between the preparation of teachers in the PGDE (Pri) programme at National Institute of Education (NIE) at Nanyang Technological University (NTU) and the implementation of STELLAR. NIE has granted permission for data collection and our institution is currently reviewing her research plan through our internal institutional research ethics review system.

As her research focuses on teacher preparation and the implementation of STELLAR, she would like to invite graduates of PGDE (Pri) from 2013-2014 who are currently beginning their careers as English teachers at primary schools to participate in her research study in order to understand more about their perspectives of incorporating STELLAR in their schools' literacy programmes. In addition, she would also like to contact STELLAR representatives from MOE to understand more about STELLAR principles and prior findings from pilot studies. Lastly, if possible, she would also like to gain access to STELLAR lesson packages in order to examine teacher participants' sharing of their implementation in schools.

Based on the methodology of her thesis research, participant teachers and STELLAR representatives would be requested to schedule interviews during their most convenient time in September 2015. In addition, classroom observations of STELLAR lessons would be conducted in order to understand more about the actual implementation of lessons. The procedures and purposes of the research will be clearly explained and informed consent granted by all teachers prior to their participation. Taking part in this study will be completely voluntary, and participants will be welcome to discontinue their participation at any time.

If you have any questions or concerns about her research proposal, please feel free to contact her by email at e14m3204@soka-u.jp. In addition, you are welcome to contact me, her advisor here at Soka University, Professor Richmond Stroupe (richmond@soka.ac.jp) at richmond@soka.ac.jp or Professor Willy A Renandya (willy.renandya@nie.edu.sg) who has kindly agreed to be a member of the thesis advising committee.

Thank you for considering our request, and we look forward to hearing from you in the near future.

Sincerely,

Richmond Stroupe
Chair
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192-8577 Japan
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