Title	Changing the world for the children of tomorrow: ASEAN teacher education
Editor	Jessie Png

Changing the World for the Children of Tomorrow

ASEAN Teacher Education

This book consists of chapters written by teacher educators from universities which are members of the Association of Southeast Asian Teacher Education Network. These universities are one of the best, if not the best, in teacher education in their respective countries in Southeast Asia. The authors earnestly discuss education reform; early childhood education; professional development of teachers; teacher education transformation; and theory-practice nexus in pre-service teacher training, in their respective countries. Many suggestions and ideas are put forth by the authors, and these can be adapted in other teacher education institutions in the region and beyond. Teacher educators, researchers, policy makers, teachers as well as anyone interested in what Southeast Asian universities are doing in terms of education and teacher education, should find this book enlightening.

Editor:
Jessie Png

CHANGING THE WORLD
FOR THE CHILDREN OF TOMORROW
ASEAN TEACHER EDUCATION

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FOREWORD

I am proud to see the fruition of this book project by the Association of Southeast Asian Teacher Education Network (AsTEN). AsTEN is a network of premier teacher education institutions in the countries in ASEAN. It addresses issues, challenges and concerns relevant to teacher education programmes, practices and policies in the region. It also serves as a vehicle for collaboration in both academic and research endeavours within and across member institutions. AsTEN undertakes various initiatives and projects to produce tangible outcomes of this collaboration that can benefit all member countries. The publication of this book is one of such important outcomes. It addresses various aspects of education and teacher education – two areas which are vital to the growth and progress of ASEAN. On behalf of all AsTEN colleagues, I would like to thank Kasetsart University, Thailand, for initiating this project, all the authors who have contributed to its success, and Dr Jessie Png for undertaking the important task of editing the volume. I am also grateful to the Universitas Pendidikan Indonesia (UPI) for generously sponsoring the publication of this book.

The authors, who have come from seven AsTEN-member universities, discuss innovations and changes that can make education better for the children and youths in their countries. Challenges have also been candidly observed. The authors bring with them a wealth of experience in teacher education in diverse ASEAN contexts. Dr. Aye Aye Myint is the former Rector of the Yangon University of Education while Dr. Ester Ogena, the founding Chairperson of AsTEN, was the President of the Philippine Normal University. Dr. Sieng Sovanna is the current President of the National Institute of Education, Cambodia. These three distinguished educators along with their colleagues provide authoritative discussions of education and teacher education in their respective countries.

The other authors are just as knowledgeable, being experts in their own fields. Dr. Jessie Png was for many years the Assistant Dean of Practicum at the National Institute of Education, NTU Singapore. She discusses the Institute's efforts in bringing about a stronger theory-and-practice nexus through transformative practices in the teaching practicum. Dr. Prompilai Buasuwan, who was a Head of Department in the Faculty of Education of Kasetsart University, discusses the challenges and initiatives for in-service professional development in Thailand. Dr Abdul Halim Masnan and colleagues in the Universiti Pendidikan Sultan Idris shone a light on the improvement of preschool education in Malaysia in terms of teacher quality and inclusivity for children with special needs. The issue of teacher quality is also discussed by Dr Ace Suryadi of UPI who highlighted the dilemma of balancing quality and quantity within a bureaucratic culture in a vast country.

It is indeed timely that this book, *Changing the World for the Children of Tomorrow: ASEAN Teacher Education*, has been published. It will be an important reference for scholars who are interested in teacher education in ASEAN. It showcases what the AsTEN-member universities have done to raise the quality of teacher education so as to bring about a better world through education. To paraphrase Mahatma Gandhi, education links the children, whether of the cities or the villages, to all that is best and lasting in a country. May education in ASEAN continue to flourish through a constant improvement of teacher quality so that our children in ASEAN will have the best and brightest future that each of them deserves.

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Chairperson, AsTEN
Director, National Institute of Education
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2020

PREFACE

This book is a result of a project initiated by Kasetsart University, a member of the Association of Southeast Asian Teacher Education Network (AsTEN). The chapters in this book are contributed by some of the members of this Network.

AsTEN was formed in September 2014. The members are from top Teacher Education Universities/Institutes of their respective countries in Southeast Asia. They are: Kolej Universiti Perguruan Ugama Seri Begawan, Brunei; National Institute of Education of Cambodia; Universitas Pendidikan Indonesia; National University of Laos; Universiti Pendidikan Sultan Idris, Malaysia; Yangon University of Education, Myanmar; National Institute of Education, Nanyang Technological University, Singapore; Kasetsart University, Thailand; Philippine Normal University; and Vietnam National University Ho Chi Minh City.

AsTEN aims to:
1. provide a venue for scholarly discussion and exchange on relevant issues and problems affecting teacher education as well as explorations of strategic actions and policy reforms on education.
2. promote research collaboration, academic exchange and activities through cross-national and international collaborative study and research among member teacher education institutions.
3. develop broader understanding of the history, culture, values and traditions of the ASEAN countries as expressed in their teacher education and basic education programmes and practices.
4. promote cooperation towards harmonisation of curricular programmes and quality assurance standards and cross-border mobilities among teachers and students.
5. develop mechanisms for professional development of human resources of teacher education in the ASEAN Region including explorations of innovations and sharing of best practices in teacher education.
6. promote opportunities for faculty and student exchange and/or visits and other programmes and activities.

AsTEN has a multi-disciplinary peer- refereed international journal. It provides a scholarly forum on the dynamics of teacher education and the current initiatives of AsTEN member institutions in the areas of research and publication; scholarship of teaching; teacher education leadership; curriculum and pedagogy; reciprocity programme; quality assurance; harmonisation of standards; and other relevant topics which continue to shape and re-define teacher education in the ASEAN region.

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TABLE OF CONTENTS

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ENHANCING THE THEORY-PRACTICE NEXUS IN PRE-SERVICE PRACTICUM: THE SINGAPORE WAY

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Abstract

Teacher education institutions or universities all over the world struggle to help their student teachers narrow the gap between the theories they have learnt and the translation of those theories into actions in the classroom. This chapter will show how the National Institute of Education (NIE), Singapore addresses this issue through her practicum programme. The latter has been enhanced to include the use of e-Portfolios, reflective practice and teacher inquiry. NIE also strengthens her relationship with the schools by getting the school mentors involved in conducting focused conversations with their student teachers during practicum. This chapter will also present the implications of the initiatives carried out by NIE for ASEAN and countries beyond.

Keywords: theory-practice nexus; practicum; e-Portfolio; reflective practice; teacher inquiry; enhanced school partnership

Introduction

Teacher educators in institutions or universities are often accused of being too theoretical, so much so that their student teachers cannot apply what they have learnt from these educators into the real world—their classrooms. This gap between the skills and knowledge taught in pre-service programmes and the actual situation in the classrooms is confirmed by studies conducted over the years (Cochran-Smith, 2005; Korthagen, 2010; Roness, 2011, cited in Allen & Wright, 2014). The National Institute of Education (NIE), the only institution which accredits teachers in Singapore, is not exempted from this issue.

NIE's teacher education is university-based, as she is part of the Nanyang Technological University, but she continues to strengthen her collaboration with the Ministry of Education and the schools in order to assist her student teachers "make effective transitions from campus learning to classroom teaching" (NIE, 2009, p. 40). Good teacher education programmes have "extensive and intensely supervised clinical work integrated with course work using pedagogies that link theory and practice" (Darling-Hammond, 2006a, p. 300). NIE aims to continue to have a good teacher education programme so she addresses this issue of theory-practice disparity through the practicum programme. Even researchers like Allen and Wright (2014) affirm that practicum is "one of the time-honoured

approaches to mitigate against the theory-practice 'gap' in teacher education" (p. 137). The practicum is an integral part of NIE's initial teacher preparation programme. It is through practicum that student teachers have the opportunities to put in context the theories they have learnt and translate that into action in the classrooms. The programme has been enhanced to include the use of e-Portfolios, reflective practice and professional inquiry. NIE acknowledges that the practicum programme cannot succeed without having a strong partnership with the school mentors. For that reason NIE engages the school mentors to conduct focused conversations with the student teachers under their charge, and faculty members conduct workshops to equip these mentors in facilitating these conversations. This partnership with the schools will further tighten the theory-practice connection.

The e-Portfolio

One of the ways NIE addresses the issue of theory-practice gap is by introducing the use of e-portfolios. All pre-service students at NIE have to set up an e-Portfolio each. The e-Portfolio is "an electronic collection of authentic and diverse evidence of a student teacher's learning and achievement over time, on which he/she has reflected and designed for personal development as well as for presentation to audiences for specific purposes" (NIE, 2012, p. 11). Portfolios have been used worldwide in teacher education institutions or universities as a way of monitoring and assessing pre-service and in-service teachers. In the process of developing their portfolios, teachers "meaningfully select artefacts that illustrate their learning and how closely it is translated into actual teaching" (Koh & Liu, 2015, p. 6). This in turn helps them "to take charge of their own learning and professional development, identify and analyse principles and content and develop dispositions that will be needed to accurately and convincingly document their competency as teachers" (Stolle, Goerss, & Watkins, 2005 in Koh & Liu, 2015, p. 6). Because of the availability of free cloud-based open-source platforms, NIE chooses to use the electronic form of portfolio instead of the hard-copy one. Moreover, e-Portfolios reach out to a wider audience than the non-electronic ones.

As part of their NIE coursework, student teachers have to attend a course entitled 'Professional Practice and Inquiry'. This course is meant to show them the purpose and use of portfolio; what teaching philosophy is about; how to inquire into teaching; how to embark on reflective practice; how to share the e-Portfolio during their practicum, and other topics. The student teachers will learn that the e-Portfolio "serves as a cognitive framework" which gives them the opportunities to "form connections between the various modules undertaken at NIE" (OTE, 2016, p. 37). By doing that they should be able to "synthesise and aggregate their learning, and strengthen the theory-practice connection" (OTE, 2016, p. 37).

In one of the weekly lectures on "Teaching Philosophy", they are taught how to write their teaching philosophy and they are to write their statements and put them in their e-Portfolios. In order to write their philosophies, they have

to draw on what they have learnt in their various courses, like Education Studies and Curriculum Studies courses, about the theories of teaching and learning and the methodologies of teaching specific subjects. The student teachers may see their philosophies change with time, especially after their practicum stint in schools, and they are encouraged to revise their philosophies and re-load them onto their e-Portfolios.

The use of e-Portfolio is not confined to the 'Professional Practice and Inquiry' course; it is subsumed into NIE's curriculum. Tutors of other courses are encouraged to assign tasks for their student teachers to do and to instruct them to put them up onto their e-Portfolios. Hence, student teachers document what they have learnt at NIE by uploading their artefacts, such as coursework; photographs of the activities done in their classes; teaching resources and project work. During practicum they can refer to the artefacts in their e-Portfolios to remind them of the knowledge they have acquired and can use in their classrooms, for instance, some strategies for classroom management. They can also utilise the teaching resources they have deposited in their e-Portfolios. This was exactly what one student teacher did in 2012. Some of the ideas she carried out in her lessons during practicum were "extracted from what I [she] had recorded in my [her] e-Portfolio, which makes me [her] glad that I [she] had a platform to store all these ideas in the first place!" (Chan, 2015, p. 79). This shows that what are taught at NIE can truly be translated into student teachers' practices.

The e-Portfolio also provides an avenue for student teachers to submit their reflections on educational issues. They have the choice of inviting their course mates and tutors to view their reflections and to comment on them. By doing that they can learn from the feedback and refine their thinking processes. In some courses, the tutors assign discussion topics for their student teachers to work on and they are to post their views or essays in their e-Portfolios. They are to grant their fellow course mates and tutors access to their posts so that group or class discussions can take place online. The task can then be assessed by the tutors, but the whole e-Portfolio is not to be assessed by anyone. These reflections, be they self-directed or not, and discussions promote critical thinking into theories and ways these theories can be applied in the classroom.

How the e-Portfolio further enhances theory-practice link and is used for practicum are discussed below.

Focused Conversations

All student teachers have to go through a 10-week practicum in their final year of studies at NIE. During that practicum they have to participate in three Focused Conversations (FCs) with the School Coordinating Mentor (SCM) of their practicum school and their fellow student teachers in that school. The SCM is a senior teacher who facilitates the practicum of student teachers attached to his/her school and who mentors them too. FC1 centres on student teachers' portfolio sharing on 'My Learning in NIE'; FC2 focuses on the

discussion on 'Managing Teaching and Learning'; and FC3 is back to student teachers' portfolio sharing on 'My Learning in School'.

The SCMs have been trained by NIE on how to facilitate these Focused Conversations. Because of FCs, the SCMs are now not mere administrators and assessors of practicum but also mentors to the student teachers. They partner NIE in helping our student teachers make meaning of what they have learnt at NIE.

1. Focused Conversation 1
In the first Focused Conversation which is held during the first week of practicum, student teachers have to present their teaching philosophies to their SCMs. They have to also share what they have learnt at NIE that have influenced their conception of teaching and learning and highlight some of the things that they hope to try out during their practicum. They can present their teaching philosophies via their e-Portfolios, or extract resources from their e-Portfolios and put them into powerpoint slides. Similarly, when they share about how they intend to teach their specialised subjects, they can showcase the artefacts which they have deposited in their e-Portfolios. This first Focused Conversation (FC1) provides a good opportunity for them to articulate their learning and teaching plans. This is what a student teacher had to say about FC1:

> The process of preparing for the presentation allowed me to reflect on why I chose to teach, and to track how my beliefs about teaching had changed. I was also able to reflect on the many things that were taught at NIE and to identify those that I felt were relevant for application during my practicum and subsequently in my teaching as a qualified teacher. (Loo, 2015, pp. 73-74)

One SCM gave her opinion about FC1 via email, stating that it was interesting to note that despite the student teachers under her charge having gone through similar initial teacher training programme, each of them "took away a distinct learning experience and reflected on how it shaped his/her teaching philosophy".

2. Focused Conversation 2 and Reflective Practice
The Focused Conversation 2 (FC2) takes place mid-way through the practicum. Student teachers in the same school will meet with their SCM to share their reflections on one of these: an issue on classroom management which they have encountered in their lessons or with their students; or on motivation and instructional strategies which they have encountered or practised in their lessons. Before coming for FC2, the student teachers would have prepared what they want to share using the 4-Step Reflection Process that was taught to them (this 4-Step Reflection Process will be expounded in the next paragraph). The SCMs have gone through a workshop on how to facilitate FC2 using this Process. They are to guide the student teachers to "co-construct knowledge, discuss their prior beliefs, integrate their personal-professional knowledge, and develop their

personal stance towards teaching" (Png & Liu, 2017, p. 228). The SCMs are to refrain from prescribing ways to solve the problems raised because the student teachers are the ones who are supposed to propose solutions to their problems after they have reflected on them. After one student teacher has shared, the SCM is to encourage the rest of the student teachers in the group to give their input on what is being shared. In this way, the student teachers learn from one another too.

A number of advocates of reflective practice have designed different models for reflecting. It is useful to guide student teachers to reflect using a structure or a framework (Borton, 1970; Gibbs, 1988; York-Barr, Sommers, Ghere & Montie, 2006). NIE has adopted the 4-Step Reflection Process suggested by York Barr, Sommers, Ghere and Montie (2006) and has illustrated it in a cyclical form (see Figure 1). This 4-Step Reflection Process "brings the reflector through a sequenced process of thinking: description (what?), analysis and interpretation (why?), overall determination of meaning (so what?), and projections about future actions (now what?)" (York-Barr, Sommers, Ghere & Montie, 2006, p. 82). The student teachers actually do a reflection "on-action" (Schon, 1983), that is, they "reflect back on circumstances or events that have already occurred" (York-Barr, Sommers, Ghere & Montie, 2006, p. 85). In FC2 the NIE student teachers reflect back on the issues mentioned in the preceding paragraph. They also do a "reflection-for-action" (Butler, 1996) as they "envision the effect of specific interventions or actions on a group of students, the classroom as a whole" (York-Barr et al., p. 87). This is evident in the last stage of the 4-Step Reflection Process. This last step will prepare the student teachers "for a similar situation should it occur again in future" (OTE, 2016, p. 60). In this sense, the 4-Step Reflection Process is a cycle and "has a spiral effect—it leads the teacher to a higher level of action and reflection" (OTE, 2016, p. 60).

What happened? (Description)
What did I do? What did others [my students] do?

Why? (Analysis & Interpretation)
Why did I think things happen this way? Why did I choose to act the way I did?

So what? (Overall meaning & application)
What have I learned from this? How might this change my thinking, behaviour [teaching] or interactions with others [my students] ?

Now what? (Implications for action)
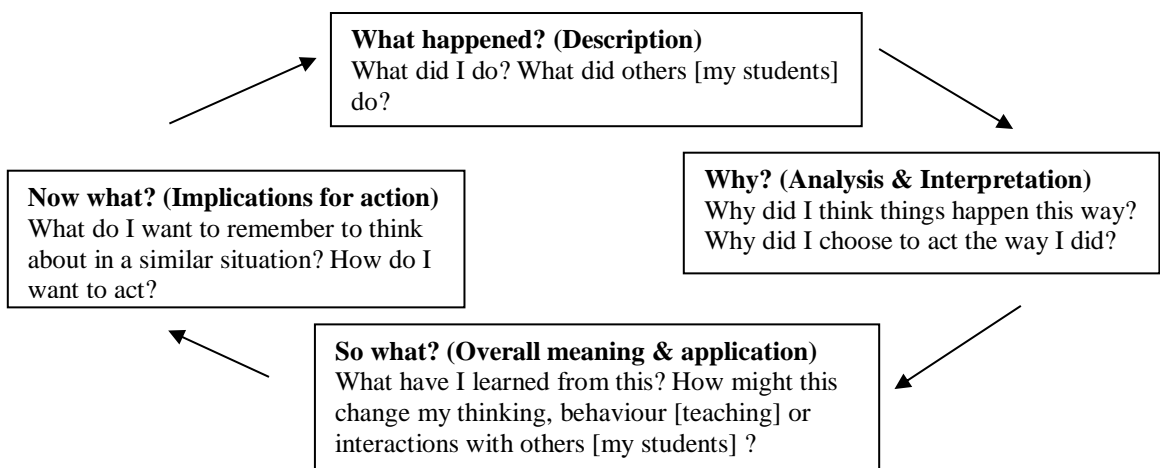What do I want to remember to think about in a similar situation? How do I want to act?

Figure 1. The 4-Step Reflective Process[1]

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[1] Adapted from York-Barr, Sommers, Ghere & Montie (2006)

The benefits of having NIE student teachers reflect and use a reflection framework is affirmed by a student teacher:

> Reflection helps turn confusion to clarity, to think about the successes and which interactions need more work ... Tools such as Fig 1 [similar to Figure 1 in this chapter], shared with us when we were at NIE, help me to analyse my blunders and how I might repair the damage those times I'd floundered. (Koh, 2015, p. 92)

Crawley (2006) defines reflective practice as an "intuitive and implicit application of professional knowledge to specific teaching-and-learning settings" (p. 1). That was what the author of this chapter witnessed when she sat in at a few FC2s. The student teachers shared what they did in class, and though they did not mention where they got those ideas from, it was obvious that they were drawing from the pool of "professional knowledge" they had acquired. Kettle and Sellars (1996), in their study of third-year student teachers, found that "the use of reflective groups encouraged student teachers to challenge existing theories and their own preconceived views of teaching" (cited in Ferraro, 2001, p. 1). That was what the author of this chapter saw too in the FC2s. When the SCMs opened the discussions to the group after one particular student had shared, the others would counter-propose some strategies to solve the problem raised or contribute their opinions. One SCM found FC2 "a useful experience as student teachers share their experiences, offer their actions" and that the student teachers in the group "encouraged each other and offer their view points and what they had done in their own classes" (feedback posted via email). In one FC2, the SCM consolidated the sharing and discussions by asking the student teachers in her group how much of their practice on classroom management was informed by theory. One student teacher shared that he learned about different teaching and learning styles in NE, and that teachers had to cater to diverse learners. He would try to have differentiated worksheets for his class so that those who finished their work earlier would not be restless and resort to misconduct.

It can be summed up at this point that the use of reflective practice, together with the focused professional conversations between the SCMs and their groups of student teachers, have helped NIE fostered the theory-practice nexus in teacher education. FC3 will not be discussed in this chapter as it focuses on what student teachers learn during their practicum and how they see themselves grow in relation to the NIE's list of Graduand Teacher Competencies.

Professional Inquiry

To build on reflective practice and focused conversations, NIE introduces professional inquiry in the practicum programme. The professional inquiry is a vehicle to drive the practice-theory nexus, not so much the regular theory-practice nexus (this will be discussed further on).

It is vital that "teachers inquire into their own practices, to refine teaching pedagogies and inform instruction to their students' understanding

and learning" (Chua, 2015, p. 105). Professional inquiry, better known as teacher inquiry, is "defined as systematic, intentional study of one's own professional practice" (Dana & Yendol-Hoppey, 2009, p. 6). In such an inquiry, the teachers, including student teachers, "seek out change by reflecting on their practice" (Dana & Yendol-Hoppey, 2009, p. 6). That is what NIE encourages her student teachers to do via the reflective practice model. However, NIE wants them to take a step further by "collecting data to gain insights into their wonderings", "making changes in practice based on new understandings during inquiry and sharing findings with others" (Dana & Yendol-Hoppey, 2009, p. 6). This data collection and analysis are not supposed to be as comprehensive as those in normal research (Cochran-Smith & Lytle, 1999; Richardson, 1994). Dana & Yendol-Hoppey (2009) assert that teacher inquiry is intentional and that the teachers' thinking becomes visible as they share with the teaching fraternity. In line with these, NIE intentionally incorporated question (1) for students to answer after their FC2, and questions (2) and (3) after FC3:

(1) What data (observation, interview, test marks, etc.) will I collect to help me improve in my teaching practice?

(2) How have I used my data (observation, interview, test marks, etc.) to inquire into my teaching practice?

(3) How have I used inquiry to develop one or more Graduand Teacher Competencies?

The answers to these questions are to be submitted to their NIE supervisors via their e-Portfolios. Not only do the NIE supervisors get to read them, but others who are given access to the student teachers' e-Portfolios will also have a chance to do so. This is the "sharing with others" aspect of teacher inquiry which is mentioned above.

Below is an extract of a student teacher's response to question (2):

Based on the data from my APT [Assessment of Performance in Teaching] forms, lesson observation notes, consultations with my CTs [cooperating teachers], students' test results, as well as after-class conversations with students over the past weeks, I have gleaned a better understanding of the students' learning needs. For example, the results from the students' first few editing tests alerted me to their weaknesses in grammar and the significant variation in language standards between members of the class. Accordingly, in order to maintain students' engagement with the material, I adapted my grammar lessons to suit the students' learning styles better by targeting only key areas that the students were especially weak in (e.g. tenses, subject-verb agreement). In this way, I have endeavoured to ensure that no student is left behind. (Ow-Yeong, 2015—extracted from his e-Portfolio with permission)

The above is an example of how the practice-theory, not theory-practice, link is strengthened. Smyth (1993) explains how in the past, 'practice' referred to application of ideas "developed by someone else (who usually wore the label of

theorist or policy maker)" (p. 1). With the reflective approach, an approach which Smyth thinks is more relevant in today's context, practitioners are "assisted to theorise their own accounts of practice, and how they might use that as a springboard for action" (p. 1). He added that educationists should ask "what do practitioners need to know, and what do they already know or understand that might help them gain those insights?" instead of "what is best for practitioners to do?" (p. 1). This was exactly what happened when the student teacher in the above example inquired into his teaching. He carried out his planned lesson and realised that it did not turn out that well—this is the practice component. He ended up learning or theorising that to meet his students' learning styles, he should target "only key areas that the students were especially weak in" during his grammar lesson. This perhaps exemplifies the practice-theory link which is a by-product of teacher or professional inquiry.

Enhanced Partnership with Schools

NIE sees the value of improving her partnership with the schools as this is one way to reinforce the theory-practice connection. NIE is "at the helm of formal teacher education within an academic setting, equipping and reinforcing teachers with the values, knowledge and skills that will enable them to successfully navigate the challenges of the twenty first century classroom" (NIE, 2009, p. 41). She sees the schools having to play "a bigger, more active role in practicum ... and bridge the gap between campus-based learning and 'real classroom settings" (NIE, 2009, p. 41). As such, she works closely with the schools through practicum.

In the past, the school coordinating mentors saw themselves as administrators of practicum – assigning them to cooperating teachers (CTs), and compiling the final assessment report. The CTs simply supervised and assessed the student teachers assigned to them. These have since changed. NIE now involves both the SCMs and CTs in mentorship roles. They are now responsible for helping the student teachers "question their own assumptions, accept personal responsibility for their own continuous learning, reflect and think critically about their profession and their practice, and inquire and make informed decisions about teaching and the learning needs of their students" (Tan & Liu, 2015, cited in Png & Liu, 2017, p. 223).

To help the SCMs and CTs understand their roles as mentors and to assist student teachers link what they learnt at NIE with classroom practices, NIE conducts workshops for them. At the SCM training, they were shared their roles, the NIE's practicum structure and processes, and the necessary tools to conduct the focused conversations. In addition, they are given an opportunity during the workshop to roleplay—'guiding' the persons next to them using the 4-Step Reflection Process model. It is impressed on them that using mentoring language is vital when conversing with their mentees, hence, they were shared the verbal and non-verbal mentoring language. After this workshop, the SCMs are better equipped to facilitate the FCs and partner NIE in helping student teachers make the theory-practice link.

The CTs are just as important mentors as the SCMs. They also get to understand their roles as CTs. In Allen and Wright's study, their student teachers reported "feeling stymied in their attempts to make links between campus and classroom work" when the university and school staff are not sure of their roles and responsibilities (2014, p. 148). Hence, it is vital for NIE to go through the CTs' roles with them again though they may already be familiar with them. They, like the SCMs, are also introduced to the 4-Step Reflection Process model used by NIE student teachers, and the use of the mentoring language. When the CTs become better mentors they will be able to help their mentees bridge the "campus-based learning" and "real classroom settings" divide. Though mentors are not supposed to assess their mentees, it is unique in Singapore—CTs have to both mentor and assess their mentees. At the CT workshop, they watch video recordings of good teaching and discuss how to assess teaching using the 'Assessment of Performance in Teaching' form. This is one medium to moderate the assessment of student teachers during practicum.

It cannot be overemphasised that the school SCMs and CTs form big parts in NIE practicum jigsaw puzzle. Hence, it is prudent for NIE to develop a strong partnership with the schools.

Implications for ASEAN and Beyond

All Teacher Education bodies, be they in ASEAN or not, should try to help their student teachers make sense of the theories learnt and show them how to apply them in the classrooms. Not all the above ways of linking theory and practice done by NIE, Singapore, are applicable to countries in ASEAN or other regions in the world. However, some can be adapted or done at a smaller scale.

For ASEAN countries with weak internet connections, the use of e-Portfolios may not be practical but they can use the hard copies of portfolios instead. Student teachers can still file their written copies of teaching philosophies and hard copies of their artefacts in the portfolios, and showcase them during their presentations to their mentors. These presentations are useful in helping student teachers articulate the theory-practice link.

Teaching student teachers how to reflect and inquire into their teaching can be incorporated in any teacher education programmes in ASEAN and beyond. The values of reflective practice and teaching inquiry have already been expounded earlier in this chapter. It is within the control of the Teacher Education Institutions or Universities to take up the challenge of trying them out with their student teachers.

NIE has taken steps to enhance her relationship with the mentors in the schools and that has resulted in the successful implementation of FCs in the pre-service practicum programme. It may be easier for NIE to do so because Singapore is a small country. For teacher educators in countries in ASEAN and other parts of the world, they can perhaps work with their partner schools or district or province. Allen and Wright (2014), like Darling-Hammond (2006b), believe that for "student experience of integrating theory and practice" to be enhanced, a robust school-university relationship is vital as that "provide[s] the

most proven vehicle for establishing and maintaining environments in which pre-novitiates can develop essential professional knowledge and skills" (p. 149).

Other more manageable measures which ASEAN teacher educators may use to balance theory with practice that are not highlighted in the earlier part of this chapter are micro-teaching and assigning of coursework tasks during practicum. Teacher educators in their universities, be they in big cities or small towns, can incorporate micro-teaching in their lessons. Students have to integrate what have been taught to them, plan lessons and carry them out during their tutorials. Fellow course mates and tutors can provide feedback after that. The audience of these lessons may not be real school students but having some make-believe students are better than none.

Next, "embedding coursework assessment in practicum" (Allen & Wright, 2014, p. 149) is what Allen and Wright's research-subjects strongly advocate. Including coursework assessment in practicum might perhaps help student teachers reflect on whether some prescribed theories or strategies taught in their universities work well or not when tried out in their classrooms.

Conclusion

Time and again, studies have shown that "clinical experiences" are "powerful—sometimes the single most powerful—component of teacher preparation. Whether that power enhances the quality of teacher preparation, however, may depend on the specific characteristics of the field experience" (Wilson, Floden, & Ferrini-Mundy, 2001, p. 17). To add on to that, Darling-Hammond (2006b) has listed some "common components of power teacher education" (p. 41). Among them are the use of teaching portfolios; "a set of tools to develop the skills and practices of systematic, purposeful inquiry and critical reflection" (p. 106), and "strong relationships, common knowledge, and shared beliefs" which link the "school and university-based faculty" (p. 41). NIE is aware of all the above and that is why she enhances her practicum programme to include the above mentioned measures to address the issue of theory-practice gap in teacher education and to increase the power of her teacher education.

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THE ISSUES OF NEW PRESCHOOL TEACHERS AND IMPLEMENTATION OF INCLUSIVE CLASSES IN MALAYSIAN EARLY CHILDHOOD EDUCATION SYSTEM

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Abstract

This chapter introduces the Malaysian early childhood education system. Two fundamental issues will be highlighted in this chapter: new preschool teachers' application of knowledge and skills, and inclusive early childhood education for special needs children. Actions taken are discussed in light of the government's and non-government agencies. The policy for minimum qualification of a diploma for nursery and preschool teachers is driving the early childhood in the private sector to move forward. For the inclusivity of special needs children, the government has taken initiatives to provide accessibility and equity to these children. The implications for the Association of Southeast Asian Teacher Education Network (AsTEN) countries are that there is a need to advocate for good quality of early childhood teacher education, and to focus on developing strong relationships with early childhood education leaders, partners in federal agencies and the government.

Keywords: Preschool, new teachers, inclusive education, early childhood education system

Introduction

Within the global context, there has been an increasing focus on early childhood education. Upon realising the importance of early childhood education for the nation's development, Malaysian government has been inspired to enhance the quality of early childhood education through its policies and legislation. The government's agenda and initiatives are evident in the National Key Result Areas (NKRA), the 11th Malaysia Plan, the Government Transformation Programme (GTP), and the Education Blueprint 2013-2025.

Today, responsibilities to issue license for the provision of early childhood care and education fall under two ministries, namely, the Ministry of Women, Family and Community Development and the Ministry of Education (MoE). The Ministry of Women, Family and Community Development through the Department of Social Welfare caters for child care or nursery children aged newborn to four years old. Preschool provision for children aged four to six years old comes under the jurisdiction of Ministry of Education.

Besides these two main license issuance government ministries, there is a 3rd ministry which also offers early childhood education and care, namely, the

Ministry of Rural and Regional Development, through the Department of National Unity and Integration as well as Department of PERMATA under the Prime Minister's Department. Other non-governmental and private agencies as well as religious organizations are also providing early childhood education and care. Therefore, the provision of early childhood education and care are offered by both government ministries and non-government agencies.

As a result of diverse provision, the early childhood teacher education in Malaysia also experiences transformation since 1996 with the establishment of the National Education Act. The provision of preschool, primary and secondary education from the National Act is based on the National Education Philosophy which is expressed as follows:

> "Education in Malaysia is an ongoing effort towards further developing the potential of individuals in a holistic and integrated manner so as to produce individuals who are intellectually, spiritually, emotionally and physically balanced and harmonious, based on a firm belief in and devotion to God. Such an effort is designed to produce Malaysian citizens who are knowledgeable and competent, who possess high moral standards, and who are responsible and capable of achieving a high level of personal well-being as well as being able to contribute to the betterment of the family, the society and the nation at large" (Ministry of Education, 2008, p. ix).

National Education Act has focused especially on early childhood education, including aspects such as curriculum, teaching approaches, learning facilities, teachers, child development needs (Ministry of Education, 2004). The act also states that the purpose of the introduction of early childhood education is to educate children in poor and rural areas based on the National Philosophy of Education (Ministry of Education, 2004).

In mid-2004, the Teacher Education Division, Ministry of Education started a 5-year degree in Bachelor of Education (BoE) Program controlled by the Teacher Training Institute (TTI). BoE is a teacher training program for preservice teachers in primary schools that have degree qualifications which are under the National Education System. The purpose of this degree program is to train teachers to have professionalism in teaching practice, mastery of knowledge and understanding, and skills in teaching and learning process (Ministry of Education, 2007). According to the Education Development Master Plan (2006-2011), the government is targeting 50 percent of teachers holding Bachelor's degree in primary school in 2010 (Ministry of Education, 2006). However, until 2010, only 31 percent of the teachers have Bachelor of Teaching in primary schools and preschools (Ministry of Education, 2012).

New Preschool Teachers' application of Knowledge and Teaching Skills

Although there has been support from the government for the transformation of early childhood education, there are still issues with regard to

preschool teachers. The Malaysian statistics on preschool education show the existence of 15,627 preschool classes in government preschools and 17,899 in government agencies preschools, with an average class ratio of 1 teacher to 24 children and a class size of 23 children (Ministry of Education, 2012). In addition, the total enrolment for preschool in Malaysia is expected to increase from 92 percent in 2015 to 97 percent in 2020. The implication of an increasing number of preschool children highlights the requirement of a total of 30,000 new qualified preschool teachers (Press reader, 2016). Therefore, there is a need for the government to increase the quantity and quality of preschool teachers in both the government and non-government preschools.

Challenges for New Preschool Teachers' Application of Knowledge and Teaching Skills

New Preschool Teachers (NPT) who have successfully completed their pre-service programs and placed in selected schools face new challenges inside and outside the classroom environment (Abdul Halim, 2015; Abdul Jalil, 2007; Russell, 1987). As NPTs, they should undergo a probation period within one to three years in preschool (Ministry of Education, 2010). Although most of the NPTs have a good academic background, they lack the understanding of the concept and reality of teaching skills (Zakiah, Azlina & Yeo, 2011). Teaching skills of the NPTs involve their ability and efficiency in delivering the teaching techniques in the classroom. Teaching skills involved both academic and co-curricular activities through the strategies, methods and approaches that are appropriate to practise accordingly to the level of children development (Ministry of Education, 2009b).

The implementation of the Malaysian Teacher Standard (MTS) in 2009 is the latest agenda for MoE to put some general criteria and standards in line with the needs of teachers 'Malaysian Qualifications Framework' (Ministry of Education, 2009a). The MTS document is based on the emphasis of the efficiency of teachers through professional development of teachers as practice professionalism, knowledge and understanding, and teaching skills. The MTS "is provided as a guide and reference for teachers, teacher educators, teacher training institutions and agencies in order to create and preserve quality teachers" (Ministry of Education, 2009a, S.2). According to the MTS, the planning done by the MOE is an effective step towards the development of a world-class education system.

The main role of NPTs is to build a strong educational foundation among preschool children by providing quality learning process and environment. NPTs are expected to meet the three main aspects of the Malaysian Teacher Standard: value of professional practice in teaching; good knowledge and understanding; and effective pedagogical skills (Ministry of Education, 2009a).

However, stress due to the teaching and workload in schools faced by NPTs has an impact on their teaching skills in preschools. Mohammed Sani (2007) in his study found that teachers who had graduated from the Institute of Teacher Education not only suffer from stress due to school workload but also

experience a situation called "culture shock". Culture shock is a drastic change experienced by NPT due to differences in the teaching atmosphere within the institute where they were trained and the actual teaching environment (Bezzina, 2006; Romano, 2008). According to Siti Saleha and Surayah (2007) "culture shock" has a negative impact on NPTs in implementing effective teaching in the classroom.

Other problems faced by new teachers also involve preparing daily lesson plans which are incomplete (Chong & Cheah, 2009). Unsystematic management of teaching is very much influenced by the situation of teachers who are in the process of learning to teach (Mohammed Sani, 2007). A study done by Cloke, Sharif & Abdul Said (2006) on new teachers find that they prefer to implement daily lesson plan as a daily routine and not as an added value process.

New Preschool Teachers' Role in the 21st Century

In the Malaysia Education Blueprint (2013-2025), which was launched in 2013, the MoE provides an instrument that contains standard in efficiency of the teaching profession. The efficiency of the teaching profession includes four aspects such as teaching and learning; professional value;, activities outside the classroom; and professional contributions. Based on the instrument's efficiency of the teaching profession, 60 percent of the teacher evaluation score is based on the effectiveness of their teaching. Evaluation of the effectiveness of the teaching profession is determined by two aspects, namely the observation of teachers in the classroom, and student achievement in classes taught. The objectives of this evaluation are to establish a more consistent approach and objectives across all ratings, and foster a culture of outstanding performance in school (Ministry of Education, 2012).

The NPTs should engage with professional development programmes such as teaching preparation program to increase the level of knowledge and keep their teaching skills up to date (Ministry of Education, 2010; Mohd Mortadza, 2005). Most professional programs organized by the government are very focused in terms of content knowledge of child development; observation skills; the selection of extracurricular activities that are appropriate; the acceptance of conformity guidance procedures; and the nurturing relationships between parents and teachers (Sugawara, Ruder & Burt, 1998). Thus, through professional development programs, NTP scan identify the level of pedagogical practices that is useful when they teach in preschool.

While most countries have adopted a centralized education system, teacher education in Malaysia is more similar to the development of the National Education system that is formed from the socio-economic and political influence (Salehudin & Mahadi, 2005). The development of national education was changing very fast, especially in the methods and teacher training activities, the training period, as well as teaching content (Salleh, 2003). Most teacher education programmes in Malaysia are based on the latest educational models that involve the exercise of professional development. In addition, the focus of

the teacher education program in the Teachers Training Institute and the Institute of Higher Education (IHE) is on teaching generic skills needs, such as the preparation of lesson plans, classroom management skills, building techniques and methods of assessment questions (Shahril, 2004).

As NTPs, they need to achieve their goals and learning objectives set by the standard requirements of teachers in Malaysia (Ministry of Education, 2009a). New preschool teachers need to be monitored on the application of content and pedagogical knowledge and skills to ensure that they can maintain the best pedagogical practices. The effectiveness of the pedagogical practices of preschool teachers can be identified through the process of teaching and learning, the implementation of school policies, class control and discipline (Hellsten, Prytula & Ebanks 2009; Zetlin, Weinberg & Kimm, 2005).

The effective teaching skills of new preschool teachers reflect their profession as a teacher (Abdul Halim, 2015). Effective pedagogical practices should be encouraged in every preschool teacher regardless of whether the teacher is new or experienced. Professional teacher enhancement programs also have to be increased in order to provide opportunities for NTPs to enhance their knowledge and skills, particularly in the best pedagogical practices. The early childhood teacher education can be improved in accordance to the aims and philosophy of education in the country.

The Minister of Education highlights that teachers working in childcare and preschool centers will have to possess at least a diploma qualification from 2020. He said the regulations would involve all childcare and pre-school centers under the government and private agencies. So far the regulations had been enforced in preschools under the Ministry of Education and other agencies such as the Community Development Department (KEMAS) and National Integration and Unity Department (PERPADUAN).

Inclusive Education

Another issue that is closely related to early childhood education is the inclusive education. Malaysian education system is highly centralized through the development of government and private schools. The identity of Government school is moving with Malaysia's economy and politics development (Wah, 2010). In a multiracial country of Malay, Chinese and Indian ethnicities, the variety of the school options is according to these races. Cobley, (2018) points out the social, economic and political circumstances changes in recent years affect the policies of a student with 'Special Educational Needs' (SEN). Malaysia, like other countries, emphasizes SEN to be integrated into the mainstream education.

Historically, students with special educational needs go mostly to the special schools (Sukumaran, Loveridge, & Green, 2014). Since 1981, the Ministry of Education has followed the 'Least Restrictive Environment' (LRE) policy (Bosi, 2004; Haniz Ibrahim, 2007). The LRE refers to the location and condition of the special education classes in the classrooms of the public schools. The aims are mainly to utilise the opportunities for social integration between the students with special educational needs and their typically developing peers in as many

school activities as possible (Ministry of Education, 2004). The existence of such a classroom could allow the placement of the student with special educational needs into a regular educational setting. At the beginning of its implementation, however, many of the special needs classrooms were located at the far end of the building due to a lack of classrooms in the mainstream schools (Ministry of Education, 2009). The state is facing difficulty in opening more classes near these students' homes and their parents' workplaces. As a result, some schools just turn their store rooms into special classrooms because of the high demand from parents of children with special educational needs.

Evolving of Malaysia Special Education Services

Making links to Malaysia's Vision 2020 aspiration of a 'caring society', Haniz Ibrahim (1998) stated that Malaysia needs to support community of individual with disabilities in order to be a developed country. By mid-1990s, the paradigm of education for a student with special educational needs becomes the main focus of the country (Jelas, Salleh & Ali, 2010). This is evident from the active participation of the country and endorsement in the Salamanca Statement and Framework in 1994 for Action on Special Needs Education (Asia Community Service, 2007). Since then, there are many significant changes with the establishment of the Special Educational Unit in 1995 at the ministry's level.

In the subsequent years, the Education Act was announced (1996), followed by the Education Rules (Special Education) (1997) which is the pioneer regulation for Malaysia under this category (Lee & Low, 2013). These show Malaysia's commitment to the international committee. The legislation requires all students with disabilities to register for a special education program in the public school. There are three types of categories: visual impairment, hearing impairment and learning disabilities (LD).

The LD students are those with Down's Syndrome, Autism, Attention Deficit Hyperactive Disorder (ADHD), and Minimal retardation. The specific learning difficulties group comprises students with Dyslexia, Dysgraphia and Dyscalculia. Both the hearing and visual impaired include those with residual hearing and low vision, respectively.

In light of this, there are three different schooling options provided by the Ministry of Education for a student with SEN under the special needs education system:

(a) *Special Education Schools (SES)* are specific schools for students with SEN. There are currently 28 primary levels and five secondary level SES. Of the total primary SES, 22 are for children who are hearing impaired, five are for children who are visually impaired, and only one is for children with learning disabilities. Of the 5 secondary SES, 3 are vocational schools, while the remaining 2 are academic schools for the hearing and the visual impaired, respectively.

(b) *Schools with Special Education Integrated Programs (SEIP)* have specific classes in the mainstream schools dedicated to students with SEN.

(c) *Schools with Inclusive Education Programs* are those where students with SEN are integrated into mainstream classes, and they study the Standard national curriculum and sit for the national examination.

In the global perspective, the social model of disability is the most used in disability studies. However, Malaysia is yet to turn way from the medical model of disability which has been used for a long time because all these categories have been diagnosed by a medical practitioner based on their difficulties. Most of this practice is focused on the terms of 'educable' and 'non-educable' based on the cognitive abilities of the students with special educational needs. The Malaysian UNESCO report (2009) stated that these terms were highly criticised by the educators so the policy makers want to assure that the students with disabilities will benefit from the regular education.

The Education Act (2002) stipulates that primary level education is a compulsory, and that has an impact on the landscape of special education in Malaysia. The regular education consists of eleven years for the regular students. In contrast, special needs students are assured of 13 years (extra two years) of free basic education. That consists of one year of preschool, six years of primary, three years of lower secondary and two years of upper secondary school, and two extra years either taken at the primary or high school level.

Since then, the ministry had to revisit the Education Act 1996 and 2002 to make an amendment to omit the criticised terms. In their recommendations, for the physically disabled and those with multiple disabilities are also included as groups with special educational needs. If the physically handicapped students are cognitively able, their education will be in the form of total inclusive system in the mainstream education. In practice, all of these physically handicapped students follow the national curriculum and take the same national examinations as the normal students. The ministry feels that they will be eligible to receive all the support and assistance needed, such as wheelchairs, RAMs for easy access to school compounds, and their classes being located on the ground floors.

The Person with Disabilities Act 2008 (Act 685) defines "persons with disabilities" broadly to "include those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society" (Laws of Malaysia, 2014, p. 7). Thus, the government shows commitment to ensuring better access to quality education for them. The act stands that the people with disabilities should not be excluded from the formal school system. Therefore, the special education unit in the Ministry of Education needs to plan for equal access to vocational skills training and lifelong learning programs.

Within the development of special education in Malaysia, the country has ratified the Salamanca Statement (1994) to support students with disabilities in the mainstream education. The document has been a national guideline on creating inclusive education. More recently, The Education (Special Education) Regulations (2013), however, have broadened their definition of "pupils with special needs" to include those having visual disability, hearing disability, speech disability, physical disability, learning difficulties or a combination of disabilities

and/or difficulties. In addition, the gap between the education of students with disabilities as well as another disadvantaged group like the indigenous children and the mainstream students are brought closer through the strategic planning in the Education Development Master Planning 2006 -2010 (Ministry of Education, 2006).

Policies and Legislation of Inclusive Education in Malaysia

In planning for better quality special education program, Malaysia has taken the initiative to follow the global development and copy the trend within the international declaration. The Salamanca Statement (1994) and the Convention on the Rights of Person with Disabilities (United Nation, 2008) are the results of this. Based on the National initiatives, several strategic plans, education blueprints and the draft of inclusive education guidelines have been published by the Ministry of Education.

The Interim Strategic Plan Malaysia (2011-2020) stated in chapter 12 that inclusive education is the main focus of the ministry to assure that the students with disabilities participate in the regular education (Ministry of Education, 2012). The paper emphasizes several strategic plans that are needed to implement successful educational inclusion. The document lists the strategies to achieve the aims: (a) identify and register students with disabilities into the National Education System; (b) increase level of participants of the student with disabilities in the inclusive schools; (c) accelerate capability of achievement of the students with disabilities towards their meaningful life; (d) enhance the teachers' competency on special education within the standard rules, and (e) broaden alternative education for abandoned children.

The National Strategic Plan is proof of Malaysia's commitment to the Convention on the Rights of the Child (United Nation, 1990). The latter highlighted in the article 28 (1) that all children have the right to receive a free formal education particularly at the primary level of education. Article 23 from the same document also made an excellent suggestion that all children with disabilities are in need of special care, attention and support. Therefore, governments need to provide assistance to the disabled child and family to ensure access to education, training, health care services, rehabilitation services, preparation for employment and recreation opportunities (Armstrong, 2014), especially in the early childhood education stage.

Inclusive education was introduced through some policy developments in Malaysia over the last 15 years but there is little research investigating the extent and nature of inclusive education for pre-schoolers with special educational needs.

Access of education to children with Special Educational Needs (SEN) in the preschool

Early Childhood Care and Education (ECCE) in Malaysia is based on the notion of every child's right to quality care and holistic development in the physical, emotional, social, cognitive and health aspects, during the early years of

life. ECCE is allocated to children aged 4-6 years, and childcare centers are for younger children aged 0-4 years. As reflected in the National Education Act of 1996 (Act 550), preschool education has been formally accepted as part of the national school system. Therefore, the National Standard Preschool Curriculum is put in place, and quality standards are formulated, to assure an international norm in ECCE.

Even though primary and secondary school education for students with SEN has been available in government schools for more than two decades now, this has not been the case for preschool education. Before 2003, the government had been providing early intervention programmes through the collaboration of the Ministry of Health, and the Ministry of Women, Family and Community Development, as well as with the support of early intervention efforts of Non-Governmental Organisations (Ministry of Education, 2008).

As noted above, The Ministry of Education (MoE) is responsible for the education of children with disabilities. However, children with severe disabilities are taken care by the Ministry of Women, Family and Community Development for their education, care, and support system. Since the year 2000, the MoE has been providing preschool education for students with special education needs in Special Education Primary Schools, and Special Integrated Programs has been set up in mainstream primary schools. The MoE also plans and implements the intervention programs for the 4 to 6 age group since the year 2000. These programs were initially conducted without any allocation of training for the preschool teachers.

Special Education Preschool Programme in Malaysia

In 2003, the Ministry of Education directed special educational services for preschool-aged children with SEN. It began with the opening of 28 special education preschools for children with hearing and vision impairments nationwide (Curriculum Development Centre, 2007). These schools received allocations after the conversion process in 2004. Among the 28 schools, 22 are for the hearing impaired, five for visually impaired and one for children with learning disability.

With regard to the inclusive education implementation of a student with visual or hearing impairment, Lee and Low (2013) stated that students with learning disabilities are not yet making significant progress with inclusion. For example, Wah's (2010) study showed a majority of students with learning disabilities being placed in special education classes in the mainstream school (also known as integrated programs), and not in inclusive education in regular classes with non-disabled peers. Most studies of Malaysian inclusive education have revealed that the national special education system is still lacking a formal support system in enhancing participation of students with learning disabilities in inclusive education programs (Manisah, Ramlee, & Zalizan, 2006; Zalizan, 2000, cited in Lee & Low, 2013).

After the conversion in 2004, teachers with special needs education background were posted to these schools and other teachers without special

needs education background were trained. Grants were allocated to these schools similar to other Government preschools. There are also special grants given to NGOs and private centers to help run special programs for children. Since 2013, the MoE provides a one-off grant of RM20,000 for the setting up of private preschools or child care centers for children with special needs. For children from the low-income group, MoE pays their monthly fee. The Special Education One Stop Centres were launched in 2007 with the opening of eight such centers. The main objective of these centers is to provide free services for children with special needs and their parents, regarding early intervention, rehabilitation and other services. As of 2014, 26 centers are available throughout the country.

Another example of education for student with special educational needs is The PERMATA program that is under the Prime Minister Department. It has plans to further extend its services by introducing a special program for children with autism called *PERMATA Kurnia*. This program started in 2015 aims to enhance awareness of Autism Spectrum Disorder (ASD), and it provides early intervention programmes to help children with ASD between the ages of two and six. It also helps them to develop to their full potential, and prepares them for mainstream primary school education.

Implications for the Association of Southeast Asian Teacher Education Network (AsTEN)

Other Asian early childhood teacher education might face similar issues due to socio-cultural factors shared by many Asian countries. Actions taken by the Malaysian government and non-government agencies can be adapted and adopted by the neighbouring countries in order to enhance the quality of early childhood teacher education. The policy makers and practitioners as well as early childhood experts at all community levels in Asian countries should collaborate to address the fundamental issues mentioned in this chapter. While this chapter is not conclusive in exploring the early childhood teacher education in Malaysia, it does offer helpful insights for teachers who work with children who are linguistically and culturally diverse in the complex terrain of contemporary early childhood education.

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THE CHALLENGES AND IMPLEMENTATION OF INITIATIVE PROGRAMS IN MYANMAR TEACHER EDUCATION SECTOR

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Abstract

One of the challenges emerging from a human-centered development of Myanmar education is to reform teacher education. What are the standards in the teacher education at the current stage? What should be the expected situation within a given context; regional and international levels? What would be the possible courses of action in the future teacher education in Myanmar? To address these questions, the Myanmar Comprehensive Education Sector Review 2012-15 (CESR) Phases I and II were done, and an assessment study of teacher education was conducted in 2013. Findings indicated that there is still a shortage and insufficient quality assurance mechanism in the selected Education Colleges (ECs). The review remarked that there is no common standard for teacher competency aligned to teacher education assessment and practicum, and continual professional development to strengthen teacher competencies. Based on those findings, it is essential to provide a quality assurance (QA) competency management in all teacher training colleges and institutions. To overcome the challenges in Myanmar teaching education sector, the two initiative programs: Teacher Competency and Standard Framework (TCSF) Project and Comprehensive School-Based In-service Teacher Education (SITE) Project have been conducted. The core working group members who are national professional education experts drafted a Teacher Competency and Standards Framework for Myanmar that defines the roles and expected knowledge-base of teachers at different stages of their professional development (e.g. beginning, experienced or expert), including key performance areas, professional competencies, indicative behaviors and quality criterion. Specifically, the validation study of TCSF has been completed by consolidating feedback from three phases: expert review, a survey of practicing teachers and teacher education students, and the case studies in 2020. Continuing professional development (CPD) of teacher educators, professors, and heads of departments, head teachers and teachers is realized as an essential requirement in the process of implementing both the school and teacher education curriculum reforms. Hence, the SITE project was started in 2012 by UNICEF and Ministry of Education (MoE) and completed in 2015. This project provided Continuous Professional Development for in-service teachers. The implications

of these initiative programs for Myanmar teacher education sector are discussed at the end of this chapter.

Keywords: teacher education, teacher competency and standards framework, professional development, school-based in-service teacher education

Introduction

In the high-performing education systems, teachers have a central role to play in improving educational outcomes, and are also at the center of the improvement efforts themselves. Such systems are driven by teachers embracing and leading on reform, taking responsibility as professionals, thereby developing a wider repertoire of pedagogic strategies for use in the classroom.

Our teacher education system is committed to nurture and enhance the quality of primary and secondary teachers in 25 Education Colleges (ECs) and 3 Universities of Education. The Pre-service teacher training programs are being conducted in Education Colleges and Universities of Education to deliver flexible, innovative and relevant training courses.

Current Issues and Challenges

Since 2012, the Government has decided to implement a democratic reform policy to provide opportunities for various sectors to contribute in the areas of social and political changes. This movement has become a human-centered development, challenging the application of education as a means to help its people to be ready for changes as part of the ASEAN community.

One of the significant tasks emerging from this is to reform teacher education. Accordingly, we consider the following questions: What are the standards in teacher education at the current stage? What should be the expected situation within a given context of Myanmar; regional and international levels? What would be the possible courses of action in the future, given the current capacity and the envisioned state of teacher education in Myanmar? For these questions, the Myanmar Comprehensive Education Sector Review 2012-15 (CESR) Phases I and II have been launched in cooperation with the UNICEF and other development partners, and the assessment study of teacher education was conducted in 2013.

From this comprehensive analysis of teacher education, as to the professional standards and development of teachers for quality assurance mechanism in teacher education institutions, the findings indicated that there has still been a shortage and insufficient quality assurance mechanism currently used in the selected ECs. The study findings indicated that the ECs have never conducted any assessment or follow-up of their graduates' competency after their college completion even though YUOE has conducted tracer studies for the standard and quality assurance of training programs. It is remarked that there is no common standard for teacher competency aligned to teacher education assessment and practicum, and continual professional development to strengthen teacher competencies. It is suggested that providing essential QA

competency management for the administrators and teaching staff with continuing QA short courses is a must in teacher training colleges and institutions. Continuing professional development (CPD) of teacher educators, professors, and heads of departments, head teachers and teachers is recognized as an essential requirement in the process of implementing both the school and teacher education curriculum reforms. The challenge will be in the capacity of the system to develop the in-service and CPD programs and in providing teams of trainers to be able to implement in-service and CPD to the required scale. Quality standards and quality assurance mechanisms need to be strengthened in primary and secondary teacher education, including the establishment of common core standards and procedures for performance monitoring.

Current Initiative Projects
Teacher Competency and Standard Framework (TCSF) Project
     In conducting the TCSF project in Myanmar, the following tasks were planned to be done.
1. The title of Framework is identified into "Teacher Competency Standards Framework "to reflect the agreed taxonomy with competency standards.
2. Two documents have been created:
(a)   Policy Guidance: Teacher Education and Continuing Professional Development, Myanmar. This document is for policy level decision makers and curriculum developers.
(b) Implementation guide: Teacher Education and Continuing Professional Development, Myanmar.
    This document is for teachers – pre-service and in-service, principals, educational supervisors and teacher educators. It is designed to support teacher appraisal, as a professional planning and learning tool rather than an evaluation tool. Specific instruments may be devised to be included (evaluation rubrics; classroom observation checklists), following the field-testing, completion and final approval of the TCSF.
3. To be drafted/completed:
   • Indicators for each competency standard and minimum requirement for experienced, expert and leader teacher levels.
   • These could be generic for all teachers or described for each stage of school – KG-Upper Secondary.
   • This may be a decision influenced by field-testing following which it is expected that the current set of minimum requirements may be modified and the indicators for beginning teachers revised and enhanced by authentic practice examples.
4. Working group feedback –tracked changes/suggestions on the Final Draft Version would be useful.
5. Concept note for field test of the Final Draft Version to be drafted by the UNESCO STEM for discussions with the Working group core team.
6. Production and publication of TCSF

- Translation: Complete translation of the documents for field-testing and final versions
- Final publication in Myanmar and English and maintained throughout life of TCSF
- Final document would benefit from professionally-produced diagrams based on the current generated versions and /or others as required.
- Final DTP should provide for print and digital distribution; online and offline; readability maintained at low-resolution between print and / or photocopied production.

7. National implementation – communication, advocacy and professional development of users at all levels are required in the following finalization of the version 1.0

Encouraging teachers to continue developing and extending their competences is vital in a fast-changing world. As the Competency and Standards Framework is an important tool to link basic education and teacher education towards improving the overall quality of teaching in Myanmar, the UNESCO therefore will work closely with Myanmar's Ministry of Education (MoE) in finalizing the Teacher Education Competency and Standards Framework, and developing the Pre-service Teacher Education Curriculum Framework to ensure that Myanmar's teachers enter the workforce with the knowledge, aptitudes, and skills needed to successfully teach all learners in Myanmar.

Facilitated by the UNESCO's Teacher Education Specialist, UNESCO and MoE took a significant step forward in developing, for the first time, a Teacher Education Competency and Standards Framework which will clearly articulate professional standards for teachers. A Teacher Education Competency and Standards Framework is the key tool in making explicit "what makes a good teacher" in Myanmar – in terms of identifying what teachers know and can do – and is an important step in raising the quality of teaching and of teacher education in Myanmar.

The Myanmar Teacher Competency Standards Framework has been developed by a respected and committed group of national professional education experts. The core Working Group members were drawn from Yangon University of Education, Sagaing University of Education (SUOE), the University for the Development of National Races (UDNR), together with invited representatives from Yankin, Thingangun and Hlegu Education Colleges participating in the initial development on behalf of the 25 nationally distributed Education Colleges. The Working Group, led by the Rector of Yangon University of Education, with coordinative support by the efforts of professors from Universities of Education, consulted widely with education policy makers, administrators, peers and colleagues from within and across the higher education community and the relevant departments of the Ministry of Education. Over a period of eight months, the Working Group met four times to do literature research on an empirical analysis of primary teacher standards in Vietnam (Griffin et al, 2006), teacher evaluation a conceptual framework and examples of country practices (OECD, 2009), national competency based teacher

standards (Republic of the Philippines department of Education, 2010), Myanmar National Educational Law (Republic of the Union of Myanmar, 2014), Teacher Policy Development Guide (UNESCO, 2015), teachers' standards guideline for school leaders, school staff and governing bodies (United Kingdom Department of education, 2011) and write the initial final draft version. The group is indebted to all who provided comments and feedback on the various drafts. Comprehensive feedback was provided to the Working Group by University faculty members and by teacher educators from the Education Colleges. Consultation with national education advisors and international development partners, along with input from the Department of Teacher Education and Training, Department of Basic Education, and the Department of Myanmar Education and Research assisted the Working Group to finalize the first version.

Overall objective of the Working Group:

The main **o**verall objective of the Working Group is to draft a Teacher Competency and Standards Framework for Myanmar that defines the roles and expected knowledge base of teachers at different stages of their professional development (e.g. beginning, experienced or expert), including key performance areas, professional competencies, indicative behaviors and quality criterion.

The Working Group will:

- consolidate feedback from the expert and working member reviews of the Teacher Competency and Standards Framework Concept Note and Zero Draft Framework;
- create a final draft of Domains, Competences, and Indicators for beginning teachers (k- 12);
- draft rubrics for quality criterion and evidence descriptors (minimum and accomplished) for beginning teachers; and
- prepare a draft framework for national consultation with education stakeholders.

The Expected outcome of the working group meetings is to draft Teacher Competency and Standards Framework for the nation.

The quality of teaching is a significant factor in keeping students in school and in improving student educational outcomes. Making explicit "what makes a good teacher," such as what a teacher should know and be able to do and how well, is an important step in raising the quality of teaching and developing the teaching profession. Improving the quality of teaching is more likely to be sustainably improved if the common characteristics of good, effective or quality teaching are made explicit and relate to the settings and contexts in which teaching takes place. A Teacher Competency and Standards Framework aims to do exactly this, building from the precepts of Myanmar's National Education Law (Republic of the Union of Myanmar, 2014), which state:

"The objectives of national education are as follows: To produce good physically, mentally, morally, socially and psychologically well-developed citizens with critical thinking skills..." (cited in Chapter 2), and

"The Ministry of Education shall produce teachers who value the languages, literature, cultures, arts, traditions, and historical heritage of all ethnic groups in the nation and who have the ability to guide the development of all ethnic groups and the modern development of the nation…" (cited in Chapter 5).

What is A Teacher Competency and Standards Framework?

A Teacher Competency and Standards Framework describes and explains what are considered to be the key characteristics and attributes of good teaching and what is expected of teachers' professional practice at various stages in their professional development.

It is a tool to support teachers in their continuing professional development and achievement of quality in their professional practice.

Myanmar's Teacher Competency Standards Framework can be used to:

- provide clear direction to policy makers, curriculum developers and teachers on what constitutes professional practice and expected pedagogical content knowledge;
- guide the revision and on-going monitoring of teacher training programs, including the development of a curriculum framework;
- help assess pre-service teacher training graduates to ensure they meet minimum standards for accreditation;
- strengthen peer mentoring and instructional supervision by teacher educators, education supervisors, school heads and classroom teachers; and
- establish a clear path for merit-based teacher placement and career advancement, shifting performance evaluations from educational background and years of teaching to observable performance and competency to support students' learning.

Why do we need a teacher competency and standards framework?

Teachers have a central role to play in improving educational outcomes, and it is recognized that the quality of the teaching workforce determines the quality of education and that it is a significant factor in keeping students in school and in improving student educational outcomes.

Myanmar has commenced a process of significant change. Students of today need to acquire new knowledge, skills and dispositions to ensure their participation and success as individuals, as members of the community and as citizens of Myanmar within a rapidly developing region.

As Myanmar raises the quality of the education system, it needs teachers with the right values, skills and knowledge to be effective practitioners. To achieve this objective, Myanmar needs a strong system of pre-service teacher education, with programs that provide the theoretical foundations to produce graduates with the kinds of professional knowledge, understanding and skills associated with the role of the teacher and the process of teaching.

A teacher competency standards framework provides the guidance to meet this need. It documents clear and concise profiles of what teachers are expected to know and be able to do at the different stages of their career.

Good teachers understand and like children; have deep levels of intellectual mastery of their subjects; have high expectations for all children; are reflective and committed to improving the quality and effectiveness of their professional practice; respects the development of their knowledge; and understands that learning and practices are interdependent and that individual competences in these areas interact with each other.

Who is a teacher competency standards framework for?

The Framework is for all teachers at various stages of their professional development. This includes:

- Pre-service student teachers (students enrolled or recruited to train as a teacher either in an institution or through a blended model of intensive training and on-the-job school-based training)
- Principals of Education Colleges and schools (pre-service and in-service educational leaders and administrators in education)
- Curriculum developers in universities, colleges, teacher training providers (public and private)
- National Education Quality Assurance Commission
- Ministry of Education
- Department of Basic Education
- Department of Higher Education
- Department of Teacher Education and Training
- Department of Education Research, Planning and Training
- Education Officers, Administrators and Supervisors at all levels of education
- Monastic and private school teachers

How should the teacher competency standards framework be used?
Continuing Professional Development

To support the design and delivery of pre-service and in-service teacher education curriculum and training courses and programs covering the following:

1. Effective practice:
- To raise the quality of education in schools by providing teachers with a document that supports their efforts to improve their professional practice thereby enhancing student outcomes; and
- As a guide to help teachers think about and improve on current teaching practices.

2. Professional appraisal:
- As a guidepost for planning for professional development goals including diagnosis and analysis of the training needs of teachers at different stages of their professional development (beginning, experienced, expert and leader);

- To promote and support quality teaching by making explicit knowledge, skills and attributes that characterize good teaching practice. Understanding what teachers know, do and value is an important step in enhancing the profile and standing of the profession;
- To give teachers a tool that outlines a continuum of abilities and responsibilities central to professional excellence. This enables teachers to make informed decisions about the direction of their professional learning as they aspire to a higher level of performance; and
- To strengthen collaboration and cooperation among teaching personnel.

Monitoring and Evaluation

To support improvement in the quality of teachers and teaching, the design and on-going monitoring of teacher professional development programs include:
- To design, monitor and evaluate teacher professional development and training programs;
- To evaluate pre-service and in-service teacher training graduates;
- To use in conjunction with performance outcomes to evaluate, career track, promote and pay teachers in Myanmar;
- To hire and train aspiring teachers;
- To set annual competency achievement targets and to support evaluation of achievement against targeted competency levels throughout the year;
- To provide direction for tertiary institutions and professional development providers as they continue to develop teacher training curriculums, courses and programs that ensure the development of quality teachers and quality teaching;
- To act as a guide for thinking critically about whether the teacher's current practices are helping students attain the learning goals in the curriculum;
- To act as a basis for adopting / creating new teaching practices; and
- To serve as a reference for other educational services providers, such as monastic, community and other non-state schools.

What are teacher competencies and standards?

The framework currently describes and standards for beginning:
- Kindergarten teachers
- Primary teachers
- Lower secondary teachers
- Upper Secondary teachers

Defining Teachers' Professional Knowledge and Competence

The teacher competency standards refer to the expectations of teachers' knowledge, skills and attributes and required levels of performance at various stages of their teaching career, and are organized into four domains:
- Professional knowledge and understanding
- Professional skills and practices

- Professional values and dispositions
- Professional growth and development

As cited in European Commission (2013), each domain refers to "a complex combination of knowledge, skills, understanding, values, attitudes and desire which lead to effective, embodied human action in the world, in a particular domain". As an example, the competency standards for Kindergarten Teachers – Beginning Level is presented in the Appendix (cited in Myanmar MoE, TCSF draft, 2019).

Each domain is divided into Areas of Competence for which the competency standard is expressed as a concise statement with accompanying descriptors of the expected minimum requirements to be achieved by all teachers.

Competency standards are the expected professional abilities and skills a teacher should develop through their initial training and as they continue to grow and develop in their professional service and practice (i.e. through participation in induction and on-going in-service education and training).

The complete set of competence standards includes:

1. Teaching competence – the role of the teacher in the classroom, directly linked to the act of teaching (pedagogical content knowledge).
2. Teacher competence – the wider systemic view of teacher professionalism – this includes the role and responsibility of the teacher as an individual, within the school, the local community, and as a participant in professional networks.

This holistic set of professional competency standards aims to describe what teachers believe, know, understand, and are able to do as specialist practitioners in their fields. There are minimum requirements which explain how and in what ways knowledge, skills, actions and desired types of behaviors may be expressed. These requirements refer to all teachers' professional development, and cover all phases of their professional development from beginning through experienced, and expert to leadership levels. They also cover teachers teaching in different stages of schooling from Kindergarten to Grade 12 and for all systems (public and private) of education in Myanmar.

There are indicators which describe what really matters in learning and teaching for the stage of schooling and by reference to:

a) a coherent, descriptive account of knowledge and pedagogy,
b) national/ local circumstances, culture and need (including multi-lingual and multi-grade teaching), and
c) what is known from international research about the conditions for effective teaching and learning.

Indicators vary according to stage of schooling for which teachers are engaged to teach, for specialized curriculum offerings and for the various phases of their continuing professional development (beginning, experienced, expert and leader).

Comprehensive School-Based In-service Teacher Education (SITE) Project

In basic education schools in Myanmar, there are about 8000 primary teachers who are directly appointed without any teacher training. In order to provide pedagogical knowledge, skill and attitude, the School-based In-service Teacher Training (SITE) Project is conducted by UNICEF and Ministry of Education. This project provides Continuous Professional Development for teachers. It was started in 2012. It implements 20 townships including 10 townships from Mon State, 7 townships from Kayah State, 3 townships from Sagaing and Magwe Region. Under the project, workshops were conducted every week in order to promote sharing of knowledge, strengths and weaknesses among teachers. The course books used were ETL (effective teaching-learning). It contained 9 units which included PELA (planning effective learning activities), SCLE (school and classroom learning environment) and RISD (responding to individual student differences).

In the 2014-2015 Academic year, School based in-service Teacher Education Program was conducted in 13 Townships. The module study was started on the first week of August 2014 and was completed on the last second week of January 2015. The latest cluster meeting was completed on the second week of February in 2015.

According to the program, the module learners had to participate in the performance test by the township education supervision committee and sit for the written test on 28 March in 2015. The participants who attended the workshop were Region and State education officer, Education College staff, TEO (Township Education Officer), ATEO (Assistant Township Education Officer), Head teacher, Cluster Head and teacher.

Process

The activities of the workshop are centered on 2 components: (1) Developing the plan for the Performance Test in each Township, and (2) The review of the SITE activities and future plan. Component 1 activities focused on developing the performance Test, taking into account different perspectives of the Township education officer and cluster heads. Component 2 was to review SITE activities such as orientation workshop, monitoring, module lessons, test books based on self-study, school meeting and cluster meeting. It included 4 groups of respondents: EC staff and State and Region Education officers, TEOs and ATEOs, head teachers and cluster heads, and teachers. Activities, challenges and all comments were taken. The conduction performance and written test at Township level were discussed on the first day and the review of the SITE activities and future plan on second day.

Discussion Points
(1) Developing the plan for conduction Performance Test

The marking system for Performance Test is as follows:

(a) Module study 20 weeks × 6 marks = 60 marks,
(b) Observation record = 5 marks
(c) Teacher assessment = 5 marks
(d) School meeting = 10 marks
      (i) Attendance = 4 marks
      (ii) Discussion = 6 marks
(e) Cluster meeting = 10 marks
      (i) Attendance = 4 marks
      (ii) Discussion = 6 marks
(f) School action plan = 5 marks
(g) Individual plan = 5 marks

The Township supervision committee comprised at least 5 people. The Chairman was Township education officer and the secretary was assistant Township education officer. Head teachers assessed and reported to cluster head. The cluster head collected all the assessment marks from each school and compiled them. The Township supervision committee decided on the assessment of each school. The teachers from Monastic school and Mon National Education School might get low performance marks because they could not participate in cluster meetings regularly. The lists of the teachers who got 50 marks and above was submitted to DERPT on 20th March, 2015. The written test in the Township level was held on 28th March, 2015.

On the second day of the workshop, the participants were organized in 4 groups. They were: (a) Region and State Education officer and Education College Staff (b) TEO, ATEO (c) Cluster Heads, Head teachers (d) teachers

2) Review on orientation workshop

(a) The discussion of the Education Officer and EC staff

The orientation workshop gave the awareness and responsibility of the SITE program. The challenge was that the person who attended the first workshop did not have the chance to attend every workshop. The recommendation was that the same person should be assigned to attend every workshop.

(b) The discussion of the Township Education Officers

Most of the ATEO had a chance to attend every workshop. Therefore, they could manage the module learners according to the directed instructions. Regions, States and District Education officers did not support the Township. The challenges were: (i) The cluster head did not submit the monthly report in time; (ii) The duration of the Township orientation workshop was too short. Therefore, they did not understand the module completely; (iii) The high school head and middle school head did not understand the process of the SITE program; (iv) In some townships, the materials did not arrive in time; (v) The TEO did not have opportunity to solve the problem concerning the teachers who did not want to participate in cluster meeting. The recommendations of the Township education officers were as follows: (i) The orientation workshop for Township officer should be extended (at least 8 days); (ii) The high school head

and middle school head should attend the orientation workshop to raise awareness of the SITE program; (iii) To revise and view the module text book. (c) The discussion of the Cluster head and the Head teacher

While attending the orientation workshop, the cluster head and head teacher could lead the discussion on school meeting and cluster meeting effectively. The issue was that the facilitators did not explain how the cluster head and head teacher had to do assessment on module learners, so they assessed on their own way. The recommendations were: (i) During the workshop, the demonstration in teaching the lesson should be provided by using the module knowledge; (ii) For the following year, the module learners of the previous year should be the trainer for township orientation workshop.

3) The Discussion of the Teachers on Module Learning

The knowledge of the module was very useful and effective in teaching. Collaboration among the colleagues was attained. The experienced teachers shared their knowledge to the next appointed teachers. The challenges were: (i) One hour of school meeting was not enough for discussion; (ii) The content of the module lesson was not balanced -- some lessons had more discussion but some had less; (iii) Teachers who taught other subjects except Myanmar and Mathematics had difficulties in integrating those subjects in the module lesson; (iv) The meanings of some words were difficult to explain; (v) The text book was too heavy and large; (vi) The amount of the written work was so much that the teachers had no private time. The recommendations were: (i) Do not mention the nominated subject; integrate any subject that the teacher taught; (ii) To reduce the volume of the text book; (iii) To explain the meanings of words in the simplest way.

4) Review on Monitoring

The monitoring tools were only for the process. Therefore, there was no difficulty to complete the tools. The challenges were: (a) The State and Region Education officers could not perform the monitoring effectively; (b) The Assistant Township Education officer failed to do monthly monitoring; (c) There was insufficient staff in TEO office to do monitoring; (d) There was a lack of cooperation between Township education level and State/Region education level; (e) The focal person failed to monitor and give feedback to the clusters. The recommendations were: (a) It was necessary to monitor at least twice a year by the State or Region Education officer; (b) Assistant Education officer or the focal person of the Township should monitor at least two cluster meetings in one month; (c) The reporting system for the program of each level must be well planned and organized.

5) Review on the Text Book

To prepare lesson plans for all subjects, not just for one subject.

6) Future Plan

The distance schools will be organized nearby school as one cluster. Teachers who fail the written test will have a chance to sit for the test in the following year. Not only do the primary head teacher but also the middle school

head and high school head have to attend the orientation workshop. It is more effective to deliver the module text books one week ahead of the orientation workshop. One or two extra module text books will be distributed to the school library. To be more effective in module learning, the supervision team member will visit the SITE implemented schools.

The implementation of the SITE program will be fulfilled by reconsidering the above-mentioned challenges and recommendations.

Conclusion

The implications of the initiative programs in Myanmar teacher education sector are stated below.

Implications for Myanmar

The task force and working group for teacher competency and standard framework were formed at national level in 2015. The working group is trying to develop teacher's professional competency and standards. A Teacher Competency Standards Framework document provides clear and concise profiles of what teachers are expected to know and be able to do at the different stages of their career. It establishes benchmarks against which progress in professional development can be assessed over time. It has been reviewed and refined several times, including after a field test in 2016. As the TCSF moves from development to implementation, the three phases: expert review, a survey of practicing teachers and teacher education students, and the case studies of the validation study for the Myanmar teacher competency standards Framework (TCSF) were conducted in advance of its implementation in 2020 to ensure that the TCSF is culturally and contextually appropriate.

In implementing the National Education Strategic Plan (NESP) 2016-2021, the Ministry of Education is in the process of upgrading Education Colleges to a four-year degree program in line with international standards. The UNESCO "Strengthening pre-service Teacher Education in Myanmar (STEM)" project has been supporting MoE with the curriculum reform process through the development of TCSF. The implementation of new EC curriculum with competency-based approach was launched in 2019, and the Year 1 Semester 1 curriculum was successfully rolled-out in all 25 ECs in December 2019. Year1 Semester 2 curriculum also was planned to be implemented in June 2020.

The SITE project offers a continual professional development program. In order to meet the shortage of teachers, such a project of training for in-service teachers with and without teacher certificates should continue to be implemented. It will be in the capacity of the system to develop and to implement the in-service CPD and quality assurance at a scale that is required. The appraisal and feedback are used in a supportive way to recognize and reward good performance of teachers.

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Appendix

Competency Standards for Kindergarten Teachers – Beginning Level

Domain A. *Professional Knowledge and Understanding*

This domain centers on the information that teachers should know and be able to demonstrate. It encompasses the knowledge required for teaching different ages and stages and level-appropriate subject content competency. Inherent in any focus on subject competency is the necessity to understand how students learn and how they can be effectively taught in the key learning areas. Underpinning all competency standards in this domain is the knowledge of educational policy and school curricula for Myanmar, its aims and objectives and developments.

Areas of Competence:

Professional knowledge and understanding – Educational studies
Professional knowledge and understanding – Educational technologies
Professional knowledge and understanding – Students, families, schools and communities Professional knowledge and understanding – Curriculum
Professional knowledge and understanding – Subject matter

Domain B. *Professional Skills and Practices*

This domain deals with what teachers are able to do. The teachers' professional knowledge and understanding are complemented by possession of a repertoire of teaching strategies for different educational contexts to meet the needs of individual students as appropriate to different subject areas and stages of schooling.

Areas of Competence:

Professional skills and practices – Pedagogy
Professional skills and practices - Assessment
Professional skills and practices - Classroom management learn
Professional skills and practices - Communication

Domain C. *Professional Values and Dispositions*

This domain refers to the ideas, values and beliefs that teachers hold about education, teaching and learning. It is underpinned by the values expressed in the Myanmar National Education Laws and reflects the mutual understanding by teachers and the community about the Myanmar teacher – Teach students to be disciplined, Teach and explain to your best, Teach everything known, Appreciate students and Stand up for students whenever needed.

Areas of Competence:

Professional values and dispositions – Service to profession
Professional skills and practices - Service to community leadership
Professional skills and practices - Student-centred values

Domain D. Professional Growth and Development
This domain deals with teachers' continuing professional growth and development. It incorporates teachers' habits, motivation and actions related to their ongoing learning and professional improvement. It advocates the importance of all teachers being aware of their role as leaders within the community, and highlights the need for active research to support teachers' classroom performance and continuing professional development.

Areas of Competence:

Professional growth and development - Reflective practices

Professional growth and development - Collaborative learning

Professional growth and development - Initiative for research culture

PREPARING TEACHERS FOR THE 21ST CENTURY: CHALLENGES AND INITIATIVES FOR IN-SERVICE PROFESSIONAL DEVELOPMENT IN THAILAND

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Abstract

Thailand is one of many nations striving to improve the quality of teachers and hence the quality of student learning. Since 1999 Thailand has undergone educational reforms with the promulgation of the National Education Act in 1999 (ONEC, 1999) and the Teachers and Educational Personnel Council Act in 2003. Section 25 of this Teacher's Act stipulates the importance of ensuring the standard and excellence of the teaching profession in line with the regulations of the Teachers Council of Thailand. Although various forms of professional development have been provided to in-service teachers with the ultimate goal of improving achievement of students, the quality of Thai teachers and students has not yet been recognized as meeting expected standards of excellence. This paper will discuss the challenges in Thailand of teacher's professional development and demonstrate three key initiatives on teacher's professional development being undertaken by the present government to overcome these challenges. Implications for ASEAN Teacher Professional Development will also be discussed.
Keywords: teachers, 21st Century, professional development, Thailand

Introduction

Many nations around the world now realize the importance of preparing children for the rapidly changing world of the 21st century. The quality of preparation of these children, who will be future global citizens, rests on the quality of today's teachers. It is therefore important to develop teachers with the competencies necessary to effectively teach students in this new era. Teaching today is quite different from teaching in the past. In the past, teaching was often curriculum-centered with a prescription of what was to be taught and what was to be learned. Now teaching tends to be more learner-centered with personalized learning experiences to ensure that every student has an opportunity to succeed (Schleicher, 2012). Although effective pre-service education is vital to ensure the quality of novice teachers, many teachers enter the profession unprepared (Bayar, 2014) because the knowledge and skills obtained through pre-service education programs are often not sufficient to enable teachers to cope with the learning and skills required for students in the 21st century (Kazu & Demiralp, 2016).

The ultimate goal of professional development of teachers is to improve their students' learning achievement (Bayar, 2014; Fishman, Marx, Best, & Tal, 2003; Loucks-Horsley, Stiles, Mundry, Love, & Hewson, 2010; Whitworth & Chiu, 2015). To prepare them for life in the 21st century, today's children will require different skills from those required by children in the past. Therefore, today's teachers must be life-long learners and be equipped with the skills and competencies required for them to effectively support the new forms of learning and skills that will be required in the future. Many nations around the world have introduced a wide range of educational reforms, including new curricula and methods of instruction and assessment, with the intention of better preparing their future generations for life and work in the 21st Century (Schleicher, 2012). Therefore, teachers need to be retrained and be equipped with new knowledge and skills that will support these national reforms (Gokmenoglu & Clark, 2015). Teachers today need to constantly advance their professional knowledge as well as their professional growth. In order for teachers to keep up with these new forms of learning and teaching, teachers need to be regularly retrained. In-service professional development will be a key mechanism for preparing teachers in the 21st century and for supporting educational reform.

Many countries have different forms of teacher training and provision, and they have increasingly given their teachers access to professional development (Schleicher, 2012; Bayar, 2014). For example, science teachers in the United States of America have access to a multitude of professional development opportunities including 1) mentoring, 2) national, state, and local conferences, 3) content-specific courses, 4) summer institutes, 5) school-based opportunities provided by schools or districts, 6) research experiences, and 7) coaching (Wilson, 2013). Many teachers believe that professional development has helped them to become more effective teachers, and it benefits their students (Luft & Hewson, 2014). However, not all of the commonly used methods of professional development are effective in changing teachers and in improving student outcome (Yoon, Duncan, Lee, Scarloss, & Shapley, 2007).

Thailand is one of many nations striving to improve the quality of teachers and hence the quality of student learning. Since 1999 Thailand has undergone educational reforms with the promulgation of the National Education Act in 1999 (ONEC, 1999) and the Teachers and Educational Personnel Council Act in 2003. Section 25 of this Teacher's Act stipulates the importance of ensuring the standard and excellence of the teaching profession in line with the regulations of the Teachers Council of Thailand (Thailaw.com, Online). Although various forms of professional development have been provided for in-service teachers with the ultimate goal of improving achievement of students, the quality of Thai teachers and students has not yet been recognized as meeting expected standards of excellence (Chiangkul, 2008).

In this paper, we will discuss the challenges in Thailand of teacher's professional development and demonstrate three key initiatives on teacher's professional development being undertaken by the present government to

overcome these challenges. Implications for ASEAN Teacher Professional Development will also be discussed.

Challenges of Preparing In-Service Teachers for the 21st Century in Thailand

Preparing teachers for teaching in the 21st century is not an easy task due to the rapid changes in Thai society associated with globalization and the rapid development of science and technology. Not only the way people live and work is changing rapidly, but students in the 21st century also come to school with different sets of experiences and expectations than the students in the 20th century. Although determining a complete set of necessary skills and competencies of students in the 21st century is a challenging task, Binkley et al. (2012) has categorized three subsets of skills that students will require. These three skills are: creativity and innovation; critical thinking, problem-solving, and decision-making; and learning to learn and metacognition. Trilling and Fadel (2009) have also proposed 7 Cs skills for 21st Century learning which are: 1) critical thinking and problem solving; 2) creativity and innovation; 3) collaboration, teamwork and leadership; 4) cross-cultural understanding; 5) communication, information, and media literacy; 6) computing and ICT literacy; 7) career and learning self-reliance. The Thai government also promotes these 7Cs skills in the preparation of students for the 21st century (ONEC, 2014). However, these skills do not currently have a specific place in most curricula (Saavedra & Opfer, 2012) as they are cross-disciplinary and relevant to many aspects of contemporary life in a complex world. Therefore, it is a challenge for Thai teachers to design and incorporate these skills into their pedagogy.

Different Learning and Different Teaching Approaches

The different sets of skills required for students in the 21st century have profound implications for the competencies that teachers must acquire to effectively teach students in the 21st century. Although there is still considerable discussion about the competencies that will be required, it is clear that understanding learning will improve teaching practices. Based on an OECD comparative review of innovative learning environments (2012), five innovative teaching and learning practices that will be conducive to learning in the 21st century are as follows:

1) Inquiry-based teaching and learning: research has shown that teaching via transmission of knowledge that is highly dependent on textbooks and lectures will not be sufficient for learning in this new age. Teaching simply by giving information and setting problems for students is not enough to develop a successful inquiry-based approach. Instead, it is necessary to give students clear instructions with specific goals and with guidance for helping them to understand a problem. This guidance should show students how to: 1) apply prior knowledge; 2) acquire new knowledge; 3) evaluate designs; 4) explain failures; and 5) revise designs. Teachers must encourage student self-assessment and show them how to use evidence and how to collaborate with

others. A study of teaching practices in the Teaching and Learning International Survey (TALIS) countries has shown that most of the countries have not yet embraced these approaches as most use the older structured teaching practices, rather than student-oriented teaching practices and enhanced teaching activities.

2) Incorporating assessment into teaching: Student assessment is a vital element in an effective learning environment. However, assessment of learning which offers just feedback about student's current achievements provides a limited contribution for student's learning in the long run. Key features that 21st century assessments need to possess include multi-layered assessment at school, national, and international levels; alignment with the development of significant learning goals, standards and instructional systems for the 21st century. The assessment should also be performance-based and add value to teaching and learning by providing information that can be acted on by students, teachers, and administrators.

3) Collaborative learning: Encouraging students to collaborate with each other during learning is important as it not only assists them in acquiring knowledge, but it also helps them to develop communication skills and the ability to cooperate with others that are required in today's society and economy. However, research suggests that individual learning cannot be abandoned but should complement cooperative learning. Although many teachers claim to use cooperative learning techniques, most use them informally and do not incorporate the group goals and individual accountability essential to collaborative learning.

4) Advanced technology in the classroom: Technology is increasingly influencing all facets of people's life and work. Teachers need to understand how young people learn, play, and socialize outside the classroom. Digital media can enormously transform learning environments and empower learners to take control of their own education. However, using technology in teaching and learning should not be confused with a technology-driven approach which often fails to take students into account.

5) No single best method. There is no single best method of teaching in the 21st century. Today's teachers need to be able to combine "guided discovery" and "direct instruction" methods in a way that is appropriate for an individual student. The key point is that teachers must have a good understanding of how particular approaches can be used and when they should be used in different situations and with different students.

Challenges of and Needs for In-Service Professional Development in Thailand

The Thai education system has undergone many significant changes with the curriculum and structural reforms introduced since 1999. Although teachers are recognized as an important mechanism in the reform process and a number of teacher's professional development programs have been offered to teachers. Little success has been achieved in changing the practice of teachers in

Thailand. Various studies have revealed key problems facing professional development of teachers in Thailand (Chiangkul, 2008; Chuntra, 2014). These problems include the following areas:

1). Lack of appropriate skills and training: Although the stated aim of pre-service training programs is to ensure that teachers are well equipped with appropriate skills and attitudes required for effective teaching, it has been found that teachers often enter the profession unprepared. The main functions of the teacher's quality control system that is overseen by the Teacher Council of Thailand are to establish professional standards and professional ethics, control the operation of professional education, and issue and suspend professional licenses. However, because the Thai education system includes approximately 120 teacher training institutes, ranging from public institutes under the Ministry of Education to public institutes under other types of ministries, to private institutes, it is difficult for the quality control system to ensure quality in all teacher training institutes. Although the Teacher Council of Thailand has prescribed three categories of professional standards: knowledge, experience, and performance, there is widespread criticism that Thai novice teachers still lack appropriate teaching skills due to inappropriate training that focuses more on theory and knowledge than on practice and that does not emphasize the skills and competencies required for teaching in the 21st century. This inappropriate training can be traced back to the quality of teachers in the training institutes. Many of these teachers were trained in the older teaching methods in the 20th century and it has been difficult for them to adjust to the newer teaching methods required to train students for teaching in the 21st century. What they have learned to be true and effective in the past may not be true and effective in the future. Therefore, teachers in the training institutes must also learn and adjust to the new modes of teaching and learning.

2). Not teaching in their own area of expertise: One of the main challenges facing many Thai teachers is that they are not teaching in their own field of study. Due to difficulties in teacher recruitment and allocation, many schools cannot get qualified teachers in all subject areas. Lack of national planning and control of teacher production is the main cause of inefficient management of teacher allocation. While there is an oversupply of teachers in the fields of physical education and social studies, there is a shortage of teachers in essential fields such as English, Science, Mathematics, and Thai language, subjects that are required for the nation to remain competitive in the global economy. This situation leads to teachers being required to teach outside their field of training, for example, teachers with a qualification in Social Studies are required to teach Science and teachers with a qualification in Music are required to teach English and other subjects. These situations are more common in schools in the outreach areas where there can be a scarcity of teachers.

3). Heavy workload: Although the teaching workload of Thai teachers is approximately 20-25 hours per week, Thai teachers can have an enormous non-teaching workload because most schools do not have supporting staff to assist in operational and administrative work. It is very common to find teachers doing

budgeting and procurement, preparing school lunches, supervising student's welfare, and doing clerical work. This situation is more common in the rural schools which have limited access to resources. Teachers with families also require time to look after their own family. An imbalance in the work-personal life of teachers also poses a challenge to teacher's professional development.

4). Limited access to professional development for outlying area schools: Common forms of professional development activities are lectures, seminars and workshops. Most of these programs are provided at the central level, educational service area level, or university level, and require teachers in rural areas to commute. Teachers in rural areas can be disadvantaged since they have to travel long distances, thus giving them fewer opportunities to get access to professional development programs that suit their own needs. More importantly, training programs provided during school times obstruct student's learning since teachers have to leave school for the training program. In Thailand, there are educational officers called educational supervisors provided by the central and educational service area levels. These officers are experts in a teaching field and are responsible for supporting, monitoring, and improving the academic excellence of teachers. However, this supporting system of educational officers is not efficient for schools in isolated rural areas. Lack of resources to support these officers is a major impediment to the effectiveness of this system. Because of the above problems, teachers and schools in the outlying areas are most susceptible to providing low quality of education.

5). Lack of a continuous internal system of educational supervision: School internal supervision is recognized as a key mechanism for improving teacher quality. The characteristics and management process of school administrators can have a significant effect on teacher development and on improving the quality of teachers. Although a part of the job responsibility of school administrators is to supervise teachers on appropriate teaching methods and professional growth, many administrators are quite reluctant to provide clear instruction and guidance to teachers on teaching techniques because of their lack of personal teaching experience prior to entering their administrative position. Teachers also develop a negative attitude toward an internal system of supervision if it is not clearly designed and is used for punishment rather than for the purpose of improvement.

Teacher Professional Development in the 21st Century

Rapid changes in the 21st century world requires teachers who can constantly update their knowledge and skills. Professional development is a vital mechanism to help teachers adjust to these changes. Professional development is considered to be a part of lifelong education (Ozdemir, T.Y. (2016). As an instrument of the reformation, restructuring, and transformation efforts at schools (Guskey, 2007), professional development makes change easier (Blandford, 2000). It is defined (Guskey, 2000) as processes and activities designed for teachers to further develop their students, to take their students forward, and to improve their professional knowledge, skills, and attitudes.

Importance of Teacher Professional Development

Ongoing research has indicated a positive relationship between teacher quality and student achievement (Abate-Vaughn & Paugh, 2009; Ascher & Fruchter, 2001; Borman & Kimball, 2005; Boyle, While, & Boyle, 2004). Furthermore, recent studies have shown that student achievement relies predominantly on teacher quality (Meister, 2010; Opfer & Pedder, 2011). Since student learning and achievement are so greatly affected by the quality of teaching, effective teacher development is important for any educational system to remain competitive in the global arena. Unfortunately, some researchers have discovered that pre-service teacher training programs often fall short in preparing teachers adequately for the classroom (Hirsh, 2001; Palardy & Rumberger, 2008). Thus, schools are left with an urgent need that can only be addressed via professional development programs.

Teachers' continuing professional development has gained much attention in educational studies over the past several decades. Various studies have shown that professional development activities outside school hours affect teachers positively (Easton, 2008; McCaughtry, Martin, Kulinna, & Cothran, 2006). Stakkey et al. (2009) highlighted the importance of teacher professional development by saying that "in-service teacher education is also often viewed as an extension of pre-service teacher education in ensuring teachers – whether new or experienced – have up to date snapshots of the knowledge needed to be effective" (p. 186). Effective professional development can result in teacher learning and changes in knowledge, skills, attitudes and beliefs, subsequently changing teacher practices (Burrows, Borowczak, Slater, & Haynes, 2012; Taylor, Yates, Meyer & Kinsella, 2011). Change in practice lead to increased student achievement (Hattie, 2008; Yoon, et. al., 2007).

Collaborative and Demand-led Approach

Although various literatures suggest that professional development is a key mechanism that affects quality teaching (Hirsh, 2001) and drives educational reform, centrally mandated reform has long been criticized by researchers and educators. For example, some teacher professional development organized centrally at the state level has been criticized as teaching curricula and methods that have been developed by teachers with limited school and teaching experience. Extensive research on school effectiveness and on improving instructional practices through professional development has suggested that a centralized approach to retraining teachers is often less effective in promoting educational reform than a less centralized approach (McConnell, Delate & Newlon, 2012; Shah, Sultana, Hassain & Ali, 2011; Smith, 2005).

Effective professional development needs to be designed to meet the needs of teachers. A teacher professional development program should be a continual and job-embedded process rather than being a short term or ad-hoc event (Blandford, 2000; Guskey, 2000). According to the professional development literature, the characteristics of effective in-service training

programs include: engaging collective participation; involving participants from the same department and grade; compliance with standards; a meaningful assessment component; continuing improvement efforts; cooperation between post-secondary institutions and school districts; intensive, sustained and job-embedded structure; and with a content focus on teachers' knowledge of subject matter (Desimone, 2009; Varela, 2012).

Traditional forms of professional development activities consist of short workshops and conferences. Researchers have criticized these traditional professional development activities, largely because their short duration. This short duration tends to make them less effective in reaching their desired goal (Abadiano & Turney, 2004; Easton, 2008) and results in little or no impact on the skills of teachers (Boyle, et al., 2004). On the other hand, nontraditional professional development, such as mentoring, peer-observation and the like tend to require more task commitment, and as a result, are more effective than traditional professional development (Birman, et al., 2000). Kelleher (2003) has also criticized traditional professional development activities as being inefficient as they fail to demonstrate observable effects on education.

Teacher's professional development in the 21st century requires changes in the practices of teachers. As explained above, a centrally-led approach and traditional professional development activities may not be conducive to reach the ultimate goals of professional development in the 21st century. Research suggests that teacher professional development should be designed to meet the needs of teachers and schools; therefore, a collaborative and demand-led approach should be recognized as a more effective approach. For example, Bayar (2014) reported the results of in-depth interviews he conducted with 16 elementary school teachers in Turkey about their experiences with professional development over 12-month period. From these interviews he identified six components of effective professional development activities. These are:

1) Activities should match existing teacher needs. This requirement is similar to that stated in Harris et al. (2001) in that professional development programs designed to directly meet the individual needs of teachers are the most effective type of programs.

2) Activities should match existing school needs. This requirement is supported by the statements ascribed to Sandholtz and Scribner (2006) and Starkey et al. (2009) that professional development activities should be related to school classroom situations in order for teachers to see links and benefits between what they are learning and their own classroom. In this regard, professional development activities could be organized differently in each school (Meister, 2010; Opfer and Pedder, 2011).

3) Teacher involvement is required in the design/ planning of professional development activities. This finding of Bayar (2014) is consistent with the results of Sandholtz and Scribner (2006) and Starkey et al. (2009), who found that teacher involvement was important in the design/planning of professional development activities and declared that teachers should be included in developing and approving professional development activities.

4) Activities should give opportunities for active participation. Starkey et al. (2009) have also emphasized the importance of providing opportunities for participants to actively practice the skills being taught and said that if teachers have appropriate time for educational practices, these activities may become much more effective than other traditional professional development activities.

5) Activities should involve a long-term engagement. This requirement is also supported by the results of Hirsh (2001), who argued that short-term engagement in professional development activities is inefficient and found that long-term engagement in professional development activities has a deep and lasting influence on teachers' learning. Torff and Sessions (2008) also stated that prolonged (long-term) professional development activities are more effective than short-term activities.

6) High-quality instructors. Bayer reveals the importance of high-quality instructors who are well-prepared and can stimulate enthusiasm of participants throughout the activities.

Supervision is also found to be an effective means to support teacherhood and professional growth. The lack of a solid theory of supervision has led to diversified concepts and practices in supervising education (Alila, Maata, & Uusiauth, 2016, ranging from guidance offered for novices in their professional growth (Hobson, Ashby, Malderez, & Tomlinson, 2009), to coaching where the coach attempts to support the client's work-related choices, and to mentoring (Alila, Maata, & Uusiauth, 2016). The most central methods of supervision are reflection and dialogue (Löfmark, Morberg, Öhlund, & Ilicki, 2009) where solution-orientation is at the core, supported by learning of experiences of success and goal-setting (Stark, Frels, & Garza, 2011). Alila and Uusiauth (2016) reveals that supervision can provide both personal support and communal support for teacher's professional growth.

Innovative Approach to Teacher Professional Development

It is now more evident than ever that the development of technology infrastructure and internet connectivity has increasingly influenced how people act and learn. Information and communication technology (ICT) allows learning to be more flexible as learning can take place anywhere and at any time. Many nations are recognizing the potential use of ICT as a necessary tool for creating the learning environment of the 21st century. There is an increasing application of online platforms for teacher's professional development as it allows personalized learning and can be used as a supplementary training that is flexible to teacher's work situations. Massive Online Open Courseware (MOOCs), for example, is an online training platform gaining more attention recently as a tool for training. Gynther (2016) indicated that X-MOOCs has been criticized for its focus on individual learning with interactive media, but now there are several MOOCs being developed with integration of different pedagogical approaches (King et al., 2014) also revealed in their study conducted with Turkish primary school teachers that Electronic Continuous

Professional Development (E-CPD) implemented in the four levels of mentoring; coaching, self-coaching, facilitation and applications can bridge the gap between the teacher's knowledge and its application, and that teachers are able to apply their learning to authentic workplace situations to improve on-the job performance.

Innovative approaches to teacher professional development are not limited to the technological aspect as they also occur in the design and activities of professional development. Wongwanich, Charoensuk and Prasertsin (2011) conducted a research synthesis regarding educational innovation development for Teacher Development based on education reform. Their study revealed three main categories of innovation development which are:

1). Ten forms of learning-developed activities run by teachers – lesson study approach; knowledge management; classroom action research; outcome mapping technique; triarchic theory of human intelligence thinking; backward design approach and experiential learning; empowerment by Neo-Humanist concepts; teacher empowerment; school-based training; and practical and coaching learning

2). Three forms of evaluation-based activities – empowerment evaluation, 360 degree evaluation and seven-e learning by evaluation checklist

3).Two forms of teacher behavior development activities – behavior changing by Kalyanamitra (Amicable) principles, and speech improvement through drama techniques.

Their study also highlighted five categories of innovation processes related to teacher development which are: 1) teaching competency, 2) curriculum development and application abilities, 3) information and communication technology abilities, 4) learning assessment, and 5) behavior change.

New Approaches to In-Service Professional Development in Thailand

Preparing teachers for the 21st century is a challenging task. Not only are Thai teachers faced with different learning experiences and expectations of students, heavy workloads, and lack of proper support and training systems, but many of them also enter the profession unprepared. To overcome those challenges and to prepare Thai teachers to meet the new skill sets required for teachers in the 21st century, the Ministry of Education has adopted new approaches to teacher professional development which are: 1) Teacher Training Voucher Program, 2) Teacher Professional Learning Community, and 3) TEPE Online (Teachers and Educational Personnel Enhancement Based on Mission and Functional Areas as Majors).

Teacher Training Voucher Program

A number of studies have revealed that effective forms of professional development that lead to change in teachers' practice and student outcomes must be designed to meet the needs of teachers and the schools with clear goals and a well-planned design. In order to bridge the gap between theory and

practice, the Ministry of Education has recently introduced a teacher professional development program that focuses on a cooperative approach among state, university and school. This program includes a coaching and mentoring technique to prepare Thai teachers for teaching in the 21st century. The Ministry of Education has provided financial support and stated expected outcomes in the changes of teaching practices that are required in support of student's skills for the 21st century. Universities participating in this program are free to design their own training programs which use a coaching and mentoring technique.

The Faculty of Education, Kasetsart University also joined in this program with the commission to provide teacher professional development for teachers and school administrators in nine educational service areas. The Faculty recognized the importance of setting clear goals with the participating schools and teachers on desirable outcomes in line with the national goals. Training programs were designed with key activities of need analysis, individual and group learning, classroom-action research, project-based approach, series of follow-ups, monitoring and evaluation, reflection, school site visits, and teaching demonstration. The duration of the training programs was approximately six months. A before- and after-evaluation of the mathematics training program found that the teachers' performance improved significantly in areas such as 1) learning management, 2) formation of a team, 3) establishment of the learning goal and research theme, 4) the designing and planning of a study, 5) implementation and observation, 6) discussion and reflection, 7) collection of data and 8) analysis and interpretation of data and the reporting of results (Chuntra, 2014). This evaluation of the program was found to be in support of literature suggesting that teacher professional development should be over an extended period, well planned to meet the needs of teachers and schools, linking theory with practice, encouraging self-reflection, and providing feedback for improvement.

Since these teacher professional development programs that are designed to better meet the needs of the teacher are found to be effective approaches, the Ministry of Education has further developed this program to a second phase called "Teacher's Professional Development Voucher" which is now at the beginning stage of implementation. In this program, each teacher receives 10,000 baht per year with the freedom to choose a training program and provider of their own choice.

Professional Learning Community (PLC)

Darling-Hammond and McLaughlin (2001) write, ''The vision of practice that underlies the nation's reform agenda requires most teachers to rethink their own practice, to construct new classroom roles and expectations about student outcomes, and to teach in ways they have never taught before'' (p. 81). One model that has evolved as a way of supporting this paradigm change is that of professional learning communities (PLCs). Not only are learning communities an essential way to organize schools in order to maximize time spent in

professional development (Louis & Marks, 1998), but various studies also suggest that a professional learning community leads to changes in teaching practice (Dunne, Nave, & Lewis, 2000; Hollins et al., 2004) that focus on student's learning outcome (Bolam et al., 2005; Hollins et al., 2004; Supovitz & Christman, 2003).

Teerakiat Charoensethasilp, Minister of Education in the Royal Thai government, has announced support for creating professional learning communities of teachers and school administrators as an innovative approach to professional development. However, in order to reduce time spent on professional development, the Ministry of Education allows teachers to use PLC collected hours as credits counted for teaching loads which are a criterion used for teaching appraisal. The ministry is also in the process of establishing a National Teaching Institute which will review and oversee the large number of PLC training programs and courses provided for teachers by universities and institutes in Thailand as part of the teacher training voucher program.

TEPE Online (Teachers and Educational Personnel Enhancement Based on Mission and Functional Areas as Majors)

Since many Thai teachers are faced with teaching out of their own fields of study, they do not have the proper knowledge and skills required to teach in their allocated subject areas. Traditional professional training often takes teachers out of the classroom which obstructs student's learning. Also, teachers in rural areas are more disadvantaged in gaining access to professional development activities because programs are usually provided in the central or urban areas where there is more convenient access to well-equipped facilities. The Ministry of Education has recognized these impediments and therefore introduced an online-training platform called TEPE in late 2015. This platform is designed to allow teachers to gain more convenient access to professional development of their own interest without obstructing time for student's learning. It is also designed to reduce the cost of training (Siam Edu News, 2016). TEPE contains course selections combined with assessment tools in areas ranging from teaching and learning to assessment to classroom action research to leadership development. Using TEPE, teachers can collect training hours to meet the standard requirements of professional development. However, some academics have suggested that the content of the training program does not sufficiently address the requirements of 21st century teaching and learning. Since this program has just been introduced, the effectiveness of this professional development program is yet to be seen.

Implications for ASEAN Teacher Professional Development

The quality of ASEAN children rests on the quality of ASEAN teachers. Preparation programs for pre-service teachers in ASEAN and Asia-Pacific countries are found to vary considerably in terms of program, duration, and providers (UNESCO, 2015). For the goal of ASEAN integration to succeed, the quality of ASEAN education as a whole must be addressed, with the quality of

ASEAN teachers as a prime focus. The following are some initiatives that could promote ASEAN Teacher Professional Development:

1). Teacher Exchange Program: International mobility through an exchange program for teachers would broaden teachers' perspectives on teaching and learning and give cultural exposure and widen experiences, so adding value to their teaching holistically. Governments could play a role in providing financial support for teachers to gain experience in another ASEAN country through an exchange program. Universities or training institutes in ASEAN could collaboratively develop exchange programs that support effective teacher professional development with a combination of academic support and experiential learning.

2). Online Training Modules: The Association of Southeast Asian Teacher Education Network (AsTEN) could develop MOOCs, open-access courses on education which are free of charge. The development of these modules through AsTEN could encourage educational institutes in the ASEAN countries to work together to create training modules based on their joint expertise. Through collective efforts and the new learning platform, the gaps in the quality of education in the different countries of the region could be minimized.

3). Network of Learning and Sharing Resources: University academics and school teachers can share teaching and learning resources and create a network of learning through a professional learning community. AsTEN could play a leading role in providing a platform for sharing teaching resources and good practices in the region. In this way, teachers could maintain their learning momentum and improve their teaching practice in order to support the rapid changes that will be required in student's learning for the 21st century.

Conclusion

Quality students require quality teachers. Teachers in the 21st century will be increasingly posed with many challenges in a world of rapid change. Since teacher professional development is considered a vital mechanism for improving the quality of teachers, it will be necessary in the 21st century for teachers to constantly update their knowledge and skills. Although various studies suggest that effective teacher professional development contribute to the quality of teachers and student's learning, not all of the current Thai teacher professional programs are effective. The needs of teachers and schools must be taken into consideration in the development of professional development programs. The use of ICT, innovative and collaborative approaches to professional development should be harnessed to develop the teachers of the 21st century.

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TRANSFORMING PHILIPPINE TEACHER EDUCATION FOR OUR CHILDREN OF TOMORROW

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Abstract

Huge developments in 21st century education demand a major shift in perspective and practice among teacher education institutions (TEIs) to ensure their continued relevance to the country and the region. The imperatives of 21st century necessitated the transformation of many TEIs' strategic directions and programs into innovative initiatives that are responsive to the many issues and challenges confronting TEIs of today. As such, educational policies and guidelines, programs and activities, and quality improvement processes are being continually assessed and improved. This chapter highlights significant efforts of educational institutions and agencies in general, and the Philippine Normal University in particular, as they take on the challenge to lead in the crucial task of transforming teacher education in the Philippines. These endeavors not only intend to bridge gaps, but also anticipate future imperatives in education that solidify ties between and among TEIs in the Philippines, the ASEAN region, and the world.

Keywords: Transforming teacher education, teacher education institutions

Introduction

The critical link between education and society cannot be denied and the same is true with the crucial link between teachers and learners in the educative process. The quality of learners a nation produces depends on the quality of teachers serving its classrooms. Teachers, being at the forefront of any learning endeavor, are mandated to transform curriculum goals into actual learning outcomes and help children achieve their full potentials to live meaningfully, productively, and responsibly for themselves, others, their country, and the world.

In the Philippines, the idea that teacher is the "key to the effectiveness of the teaching-learning process" (Republic Act 7784, Section 1, p.1) and "an important agent for nation-building and development through a responsible and literate citizenry" (Republic Act 7836, Section 2, p. 1) is clearly upheld in a number of official documents (Republic Act 7836, p.1; Republic Act 7784, p.1; and CMO 30s. 2004) that specify policies and guidelines on strengthening education and teacher training in the country.

As a member of the ASEAN and in agreement with the policies and declarations of the United Nations, the Philippines, pushes further the frontiers of education by exerting all possible efforts to align its programs and policies with the goals of the ASEAN Socio-Cultural Community where education is identified as a key platform for realizing the ASEAN vision. The country also launched development programs to address the Sustainable Development Goals and Education for All. At the national level, teacher education responds to the challenges of theK-12 curriculum implementation, a major educational reform in the country that is designed to improve human capital and build national competitiveness. TEIs have the enormous task of ensuring the success of K-12 educational reforms by supplying teachers who are well-equipped and trained to fulfill the K-12 demands. The changing educational landscape has raised the challenge for TEIs to reassert their relevance by producing quality teachers who foster 21st century knowledge, skills, attitudes, and values.

Teacher Education in the Philippines: Issues and Initiatives
Quality Assurance in Education: Meeting the Standards and Qualifications

All over the world, the increasing interest in quality and standards has transpired to various frameworks that essentially provide guidance to higher education institutions in developing their own quality assurance systems as well as in contributing to a common frame of quality reference. Teacher education in the Philippines maintains quality assurance with a strong reference to international standards for higher education in general and teacher education in particular. The ASEAN Qualification Reference Framework (2015) which supports and enhances the National Qualifications Framework in providing a mechanism to facilitate comparison, transparency, and higher quality qualifications systems (AQRF, 2015 p.3) and the UNESCO's project "ICT Competency Standards for Teachers" (ICT-CST) which provides guidelines for all teachers in producing technology-capable students, are among the international standards that Teacher Education in the Philippines adhere to. Education stakeholders agree that making the Philippine teacher education standards and qualifications transparent and comparable within and across national borders highlights a remarkable milestone in raising the quality of teacher education in the Philippines relative to the ASEAN standards and eventually, to other international standards.

On the national level, Teacher Education Institutions (TEIs) adhere to the Commission on Higher Education (CHED) Memorandum Order number 46, series 2012 titled the *Policy Standard to Enhance Quality Assurance (QA) in Philippine Higher Education Through an Outcomes Based and Typology Based QA*. This CHED memorandum specifies the government's commitment to "developing competency-based learning standards that comply with existing international standards" and to "developing and implementing an outcomes-based approach to QA monitoring" (CMO 46 s.2012, Article III, Sec. 13, p. 4). Moreover, CMO 46, S 2012 ensures that "mechanisms, procedures and processes

are in place to ensure that the desired quality, however defined and measured, is delivered." (CMO 46, s.2012, p.3 as cited in Church, 1998).

Aside from CMO 46, TEIs are also mandated by law to be of the highest quality since teachers are recognized as potent forces for the development of the citizenry (Presidential Decree 1006 of 1977, known as the Decree Professionalizing Teaching). They are also viewed as vital partners in nation-building as defined in the Philippine Teachers Professionalization Act of 1994 which aims to "strengthen the regulation and supervision of the practice of teaching in the Philippines and prescribing a licensure examination for teachers" (Republic Act No. 7836 , p. 1).

The creation of Centres of Excellence and establishment of the Teacher Education Council under the Republic Act No. 7784 are additional initiatives toward quality assurance in teacher education. In accordance with this law, there shall be identified, designated, established, and developed in strategic places in each of the regions of the country, one or more centres of excellence for teacher education based on criteria defined by the law. Meanwhile, the Teacher Education Council formulates policies and standards that shall strengthen and improve the system of teacher education in all existing public and private schools as it initiates a periodic review of curricula and programs for teacher education and training in the country (RA 7784).

The Philippine Normal University (PNU), as the National Center for Teacher Education (RA 9647), remains at the helm of the government's campaign for quality teacher education. PNU aims to produce innovative teachers, competent educational leaders, and proficient research scholars who can effectively lead and participate in the on-going educational reforms at all levels of education. The University actively works toward quality assurance, not only by producing quality teacher leaders, but also by participating in TEC projects and programs, conducting policy research, and training in-service teachers across the nation.

In 2017, PNU and its partner government and non-government agencies in local and international levels played a key role towards achieving a milestone in educational reform. Department of Education Order 72, s. 2017saw the national adoption and implementation of the Philippine Professional Standards for Teachers that enhances existing benchmarks by presenting a continuum of standards for teachers across career stages. This career progression framework views professional growth as developmental where teachers, as lifelong learners, achieve quality as they grow in the teaching profession.

Meeting the Teacher Education Criteria: Selection and Admission to Teacher Education Programs
Selection and Recruitment

In 1991, the Congressional Commission on Education articulated a strong need to address improving teacher quality and recommended appropriate measures which included imposing higher admission requirements for pre-service teacher education. This is in response to the reported low

passing percentage rates in the Board Licensure Examination for Professional Teachers. Nowadays, TEIs see to it that they are able to attract the best and the brightest among high school graduates by offering scholarship grants to those who graduated from high school with honors and those who have excelled in specific academic fields and extra-curricular activities. Also, Republic Act 10931 or the Universal Access to Quality Tertiary Education Act of 2016 provides free tuition and other fees for Filipino students enrolled in State Colleges and Universities as well as in state-run technical-vocational institutions in the Philippines. Other state-funded and private tertiary institutions also offer a myriad of scholarships as well as financial assistance schemes for students who qualify based on set criteria.

Meanwhile, to ensure that Teacher Education in the country is globally competitive, curricular programs have been reviewed and revised to strengthen faculty qualifications and encourage research productivity. In this light, the Philippine Normal University, as the National Center for Teacher Education, has launched pioneering efforts in response to the clarion call for reforms upon which other teacher education and higher learning institutions could build their own efforts. The Outcomes-Based Teacher Education Curriculum which commenced in 2014 was crafted to align teacher preparation with the needs of the K-12 Program, the Philippine Professional Standards for Teachers, and other internationalization demands.

Student Admission

In 2004, CHED issued Memorandum Order No.30 which clearly set the standards for quality pre-service education in the Philippines and defined the objectives, components, and processes of the pre-service teacher education curriculum. CMO 30 called for teacher education institutions to formalize admission policies and selection procedures where college entrance examinations are designed to measure students' aptitude, interests, and readiness for the demands of college life.

Some universities, like the University of the Philippines and Philippine Normal University, set quotas on the number of students to be admitted into their academic programs. On the other hand, some colleges and universities also adopt open admission and selective retention where entrance examination results do not place a heavy weight on the students' possibility for admission. In this system, students are evaluated per level to determine if they are qualified to proceed with their chosen courses.

Currently, admission and selection policies and procedures in teacher education institutions do not spell a marked difference from other tertiary programs since the majority also requires the submission of pertinent documents and passing of the entrance examination and interview/s before they can be successfully admitted to the teacher education programs. An individual's actual skills and personal dispositions are assessed during interviews; however, in recent years, interviews have also been conducted to ascertain students' underlying desire to take up education and provide insights into their yearning

to serve and be connected to the larger community since such dispositions are needed in the teaching profession.

Pathways to Developing Excellent Teachers: Qualities, Values, and Dispositions

Educational reforms specific to the K-12 Basic Education Program (RA 0533) have brought changes to the teacher education curriculum in terms of delivery and quality to meet national and international qualification standards. The changing educational landscape demands that TEIs enhance competencies on content knowledge, pedagogic content knowledge, and technological capabilities.

The development of qualities, values, and professional dispositions is integral in promoting excellence among pre-service students. Various researches on teacher qualities and professional competencies listed teacher characteristics that are believed to facilitate teacher effectiveness and graduate success with recommendations for the development of content mastery, pedagogical knowledge, and knowledge of learning process to develop effective teaching, as important characteristics of teachers. Studies conducted detailing teacher qualities (Balagtas et al., 2011; Abulon, 2014)underscore professional expertise and excellence as important qualities characterized by being cognizant of student expectations; reflective of their behavior both inside and outside the classroom; respectful of students; teaching objectively; and grading honestly (Celkan, Green, & Hussain, 2014).Teacher qualities that are deemed significant among students are those that emulate mastery of disciplinal content, pedagogical knowledge especially when it comes to articulating content through collaborative strategies, and fairness in dealing with students. The Teacher Education Standards as expressed in the Teacher Education Curriculum, mandated by the Commission on Higher Education integrate the development of teachers who balance content mastery and professional values. These standards are identified in CMO30s 2004 and CMO 52. In the Philippines, Teacher Education Programs follow the Concurrent program where baccalaureate programs in teacher education put together content, pedagogy, and practicum in the overall teacher education program. Hence, students may either take the pathway for Bachelor in Elementary Education or Bachelor in Secondary Education with different specializations.

In the case of the Philippine Normal University, the Outcomes Based Teacher Education Curriculum or OBTEC is the main vehicle for the development of teachers who are 1) Discipline-grounded, professionally-competent, and innovative practitioner, 2) Reflective specialist, 3) Humane, ethical, and moral person, 4) Transformative educator and 5) Critical, creative, and responsible educational technology expert. The OBTEC curriculum ensures strong philosophical and conceptual foundations for the teacher education programs to develop graduates with the following qualities: educated person, reflective teacher, and responsive specialist. Likewise, the OBTEC curriculum harmonizes the Teacher Education Standards with the competency

requirements of the new K-12 Basic Education Curriculum, and the international competency standards for teacher education in the ASEAN region and in the world. The curriculum provides more focused experiences and opportunities for the development of Pedagogical Content Knowledge and the Technological Pedagogical Content Knowledge.

Early Childhood Education: Challenges and Possibilities

Early childhood years are said to be critical, for it is during this stage when the vital part for learning is developed. Many countries invest in early childhood education to establish and nurture the foundation for the success of learners later in life.

In the Philippines, an act promulgating a comprehensive policy and a national system for Early Childhood Care and Development was promulgated on December 5, 2000. This Act paved the way for a "comprehensive, integrative and sustainable policy that involves multi-sectoral and inter-agency collaboration at the national and local levels among government; among service providers, families, and communities; and among the public and private sectors, nongovernment organizations, professional associations, and academic institutions" (RA 8980, ECCED Act, p. 2). It recognizes the importance of early childhood and its special needs, affirms parents as primary caregivers and the child's first teachers, and establishes parent effectiveness, seminars, and nutrition counseling for pregnant and lactating mothers. In 2013, superseding RA 8980, Republic Act No. 10410 also known as Early Years Act of 2013 was passed. It recognizes the age from zero to eight years as the first crucial stage of educational development, and it strengthens the ECCD system. The act also provides for the development of early childhood curriculum that focuses on children's total development and takes into account age, individual, and socio-cultural appropriateness to promote the delivery of complementary and integrative services for health, nutrition, early childhood education, sanitation, and cultural activities (Sec. 5, RA 10410).

The K-12 Basic Education curriculum features the inclusion of the Kindergarten Curriculum in accordance with the Kindergarten Education Act (RA 10157) of 2011 which directs compulsory kindergarten education for entrance to grade one. It likewise mandates the use of the mother tongue of the learner as the primary medium of instruction for teaching and learning in the kindergarten level. To ensure that early childhood education teachers meet the qualifications standards, DepEd prescribes the following qualifications and profile for teachers (Education Order 107s, 1989) in pre-schools: 1) a Bachelor of Science degree with specialization in Early Childhood or Kindergarten Education, Family Life and Child Development or Elementary Education with at least 18 units in ECCD; an allied non-education college degree with at least 18 units of ECCD; 2)male or female, between the ages of 21 and 35; 3) with training, experience, and interest in working with young children; and 4) certified physically and emotionally fit.

A number of challenges need to be addressed in early childhood education such as malnutrition, varied learning pace and styles of young learners, learning environment, curriculum and content, qualified and well-trained teachers, instructional aids, government support, and need for standardized assessment tool appropriate for Filipino children. Some initiatives include refinement of frameworks and standards for early childhood, on-going training for early childhood, development of curriculum guides by experts in the field, and increased inter-agency, inter-ministry, and multi-sectoral coordination for overall management of early childhood programs. The DepEd's kindergarten curriculum is more explicitly focused on supporting "school readiness" with the use of compiled worksheets, manipulative play materials, as well as teacher-made resources and a Pre-school Handbook for teachers.

Issues in the Cultural and Content Components of Teacher Education Program

The Enhanced Basic Education Act of 2013 or the K-12 Curriculum signaled a new era of educational reforms in the Philippines. The Act strengthens the basic education curriculum making it learner-centered, inclusive, and developmentally appropriate. It also increases the number of years for basic education by making Kindergarten mandatory and by adding two years in the secondary level. Furthermore, the Act addresses issues and challenges hounding the Philippine educational system such as the inclusivity of education and the language of instruction used in schools. Since teachers play a crucial role in the success of these newly-initiated reforms, it becomes imperative to look into the preparation and readiness of teachers who will be implementing them.

The K-12 Teacher Requirement

The enhanced Basic Education Curriculum spells out a new teacher requirement for the implementation of K-12. Notable among these requirements is the ability of the teacher to "use pedagogical approaches that are constructivist, inquiry-based, reflective, collaborative, and integrative" (RA 10533, p. 3).It also expects that teachers are able "to make education learner-oriented and responsive to the needs, cognitive and cultural capacity, the circumstances and diversity of learners, schools and communities" (RA 10533, p.3), while also cultivating love of country.

The Current Teacher Education Curricular Program

The teacher education curricula for elementary and secondary levels released by the Commission on Higher Education in 2017 recommend at least 42 units of Professional Education courses. These courses traditionally dwell on the foundations of education, curriculum and pedagogy, and practice teaching. The commission also recommends 57-63 units of Specialization courses in the fields of Science, Mathematics, Language, Social Science, Moral Education, and Livelihood Education. The Teacher Education Curriculum is expected to be

responsive to the K-12 Enhanced Curriculum, anchored on the Philippine Qualifications Framework, and aligned with the Philippine Professional Standards for Teachers, and other relevant documents.

As it aims to reform the Philippine basic education system, the K-12 Enhanced Curriculum necessitates a new set of teacher requirements for better teacher education programs in TEIs. Teacher education programs need to be re-examined or improved according to the three new teacher requirements demanded of by the K-12 curriculum. Furthermore, since the Philippines is home to almost 200 ethno-linguistic groups, it is inevitable to have diverse learners in class, a condition that is slowly gaining awareness and is being addressed by teacher education programs by forming strategic partnerships and by implementing policies supportive of multiculturalism. Efforts to address the needs of the Indigenous/Ethnic communities in the Philippines are made for education to be more responsive to varying contexts and backgrounds. Factors such as curriculum, pedagogy, and school community are considered alongside the actual needs of people with diverse needs. A significant move toward a more inclusive and multicultural education lies in the adoption of the Mother Tongue Based Multilingual Education for Kindergarten to Grade 3which promotes knowledge of the local culture and languages.

To further design a more responsive teacher education curriculum that meets local needs, the Philippine Normal University transformed its campuses as specialized hubs expected to significantly contribute to regional development and nation-building. Moreover, to ensure that targets are met, PNU offers scholarships through Faculty Development Programs aligned with the thrusts and identities of each hub: PNU Mindanao is the Hub for Multicultural Education; PNU North Luzon for Indigenous People Education; PNU Visayas for Environmental and Green Technology Education; and PNU South Luzon for Technology and Livelihood Education.

PNU also creates a more authentic TE program through various levels of Field Study leading to Practice Teaching or Practicum where pre-service teachers are given the opportunity to teach in schools with diverse student populations. This need has been addressed through the Erasmus Mundus Program where students from the National Network of Normal Schools (3NS) could take their Student-teaching or Practicum in any of the member institutions for an enriched learning experience and for greater understanding of the diverse cultures of the regions.

The Need to Promote Civic Responsibility

While it is said that it takes a village to raise (and educate) a child, and that the huge responsibility must be worked out jointly with other social institutions like family, media, and the church, the school undeniably plays a major role . The task of developing productive and responsible citizenry has been an important goal of both basic and higher education. This is clearly reflected in the objectives, content and design of the new General Education component of higher education curricular programs. Civic Responsibility is at

the core of basic education curriculum as it systematically integrates civic education and global citizenship in both the formal basic education curriculum and in its hidden, co-curricular programs. Understanding history, democratic process, values of justice, equality and participation as well as civic engagements are seriously integrated in many school courses and subjects. Indeed civic responsibility is an important vehicle to promote participatory democracy and national development, hence, efforts to inculcate this value remains at the core of educational programs in the Philippines,

The pre-service preparation of teachers has been assigned to Teacher Education Institutions. Without excellent standards in the preparation and implementation of the teacher education curriculum, it will be impossible to prepare the teachers for the huge task of implementing qualitative educational reforms. Questions regarding the content components of teacher education program, those that determine the competency of future teachers both in terms of pedagogy and content knowledge should be examined closely. Moreover, the civics and cultural elements present or lacking in the said program should be identified as well for they make the content component more relevant and useful for the learners.

The Role of Research in Quality Improvement of Teacher Education
Purpose of Research

Research in teacher education in the Philippines is highly encouraged especially in teacher education universities to provide for research-based knowledge and scholarship in a range of academic disciplines. They are likewise done to inform the design and structure of teacher education programs and as input to basic education. Individually or collectively, educators and teachers do research to investigate the impact of interventions to educational practice.

Efforts on research and innovations in teacher education universities had been accelerated in the last three years considering the government's quality requirements for performance-based bonus system; faculty promotion system (NBC 461, series of 1998); and annual institutional budget allocations (starting with GAA 2015). Research and publications in internationally refereed journals had been consistently identified, among others, as a major requirement for quality assurance for universities.

Areas of Research

Among the important components of research in teacher education are the following: (a) curriculum development; (b) instructional materials development; (c) pedagogy and teaching strategies. Researches on these areas are done to ensure the quality of institutional programs and instructional delivery. National and international conferences in teacher education, which increased dramatically in the last five years, are hosted by teacher education universities and professional associations focusing heavily on these areas across and within disciplines.

Research and Educational Policies

Large-scale research activities for teacher improvement that are intended towards providing input to the Department of Education and the Commission on Higher Education for policy reforms are being done by the Research Center for Teacher Quality (RCTQ) of the PNU in partnership with the University of New England in Australia. The PNU-RCTQ collaborated with various stakeholders in education in the development of the Philippine Professional Standards for Teachers which was adopted in by the Department of Education in 2017.

In 2009, the Philippines also participated in a large-scale study – the First International Teacher Education Study in Mathematics (TEDS-M), which was coordinated by Michigan State University under the auspices of the International Association on Assessment of Educational Achievements. Results of the TEDS-M study rippled into many investigations on the teaching and learning of Mathematics in the country.

At PNU, Republic Act 9647, series of 2009, provided for the creation of the Educational Research Development Office declared PNU as a hub for research data and information on education sector research policies of the country. Currently, the Educational Research Development Center of the University assumes this function and is currently putting up the databases that will benefit education researchers in the country and beyond.

Research and International Collaboration

The call for ASEAN community integration has challenged universities to work out collaborative arrangements in research with their partner universities. PNU, as Lead Shepherd of the Association of Southeast Asian Teacher Education Network (AsTEN) had initiated various priority research activities with its member universities. A number of collaborative researches was conducted with AsTEN-member Institutions on various topics and themes relevant to teacher education among which were: philosophy of teaching, teacher qualities, multicultural competence, global citizenship, and innovations in pedagogy and assessment. Research in Teacher Education in the Philippines is extensive and covers broad areas of interests including issues and challenges relevant to Teacher Education. These researches are shared through accredited and refereed journals. One of these journals is the AsTEN Journal of Teacher Education, a multidisciplinary peer-refereed international journal published by AsTEN. It provides a platform for scholarly discussion on the dynamics of teacher education, teacher education leadership, curriculum and pedagogy, quality assurance and harmonization of standards, just to name a few.

Implications for ASEAN and Beyond
On ASEAN Identity Formation

One of the issues and challenges in Teacher Education among ASEAN countries is how Teacher Education can best promote the development of the ASEAN identity. In Article 2 of the new ASEAN charter, one of the principles

enshrined is to "respect the different cultures, languages and religions of the peoples of ASEAN" (p. 7). This is expressed through understanding of one's own culture and identity and at the same time respect and understanding for the cultures and identities of their ASEAN counterparts. The use of English as a language of instruction, for instance, may have a bearing on the use of local languages and ASEAN appreciation of the culture. It is a challenge for ASEAN TEIs and the country's language policy to strike a balance between understanding the local languages and cultures, and at the same time acquiring the competence in the English language. Teachers are important instruments in the development of shared understanding of the ASEAN culture and identity. How this is developed and reflected in the teacher education curriculum is a very important consideration in its design and implementation.

Greater Collaboration among ASEAN Teacher Education Institutions

The ASEAN Integration paves the way for greater collaboration and partnerships among Teacher Education Institutions through the establishment of common higher education space. Part of this initiative is the open faculty and student exchange among institutions of higher learning. The establishment of common networks such as AsTEN can provide more opportunities for research collaboration in critical areas such as curriculum development; language use; teaching-learning; ASEAN identity formation; understanding ASEAN learners; to name a few. Knowledge and resource sharing is made possible through students and faculty exchanges, and other academic arrangements between and among teacher education institutions. The development of readable and comparable degrees through regional credit transfers will provide access to students from the region for greater mobility and will thereby afford students broader experiences and knowledge. Through the ASEAN integration, policy harmonization especially in credit transfers, comparability of academic cycles and recognition will provide students different learning modalities, more open relevant degrees, and quality assurance of the programs.

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TEACHER QUALITY-QUANTITY DILEMMA IN INDONESIA

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Abstract

There has to be an attempt in Indonesia to analyze how improbable the certification program to improve professional capacity of teachers, not only because they are short in quality but also deployed unevenly. Therefore, this ten-year-long teacher licensure program calls for a robust evaluation to provide feedback for improvement in teacher professionalism in Indonesia. The current management profile is unlikely to enable teachers to enhance their competency and to perform better in teaching; the centrally controlled system considers them as bureaucratic employees rather than professionals. By 2015, almost 80% of teachers were certified but the school managerial climate remains unchanged thereby discouraging them to work professionally. They prefer to follow the official instructions even without having to perform any better in teaching. Besides, the age and teaching experience remain stronger than the competency of teachers to affect their promotion and remuneration. These are the most fundamental problems that have affected the substandard quality of teachers in the country. There is finally an attempt to come up with some ideas on alternative policy issues on teacher training, management and quality assurance of teacher education.

Keywords: Teacher quality, teacher certification, teacher training and management

Background

Advancing professional quality of teachers is among the critical challenges in support for an education system to excel. To boost the nation's competitive power in the forthcoming ASEAN integration, Indonesia needs a comparable quality of its education system for which the quality of teachers does matter. Studies in many different countries find consistently that the teacher is a single most important factor for the quality of education to improve, and therefore, reforming teacher colleges vital in strengthening Indonesian teaching force. Improving the quality of teacher colleges is necessary but not sufficient enough because the employed teachers need their competencies improved and continually updated at all times through teacher training and management reforms.

In years to come, teacher training and management will be the relevant issues to address through several major strategic endeavors. These among

others are: reform in pre-service training system using at least the ASEAN comparable standards applied to teacher colleges throughout the country; establishing a merit-based promotion and remuneration system in the framework of continuing professional development (CPD); and building an evidence-based teacher planning system to ensure that the quality teachers are equally deployed and optimally utilized. This analysis has put emphasis on the ways of re-addressing the teacher training and management policies, and of re-establishing the measures of teacher professional development.

Conceptual Framework

A number of studies has shown that the teacher is the single most important factor in boosting the quality of school education. The 2004 Co-memorization of Teacher National Day found itself as the day of recovery episode for the Indonesian teachers to move upward. Teacher occupation is professional in nature, just likes lawyer or medical doctor as declared by the President of Indonesia. This needs government impetus to call for relevant follow up actions that affect the lifting up of the teacher professional competence. Among the actions was the birth of Teacher Act No.14/2005 and Government Decree No. 15/2015 on National Standards of Education. These two legislations stood as foundations for restructuring the Indonesian teaching force that enables teachers to work as professional in variance with their previous status as bureaucratic apparatus.

A highly competent teacher encourages high quality of learning processes and outcome. As Kim (2014) suggests that the quality of education cannot exceed the quality of teachers, it is then necessary to enhance teacher quality as a single top priority to excel the country's education system. Fullan (1991) made an important point by saying that "Educational [educational] change is dependent on what teachers do and think, it is as simple and complex as that... teachers have control over their classroom and they will be guided by their beliefs and prior experiences" (p. 117). In line with this, Suryadi & Budimansyah (2016) assert that "whatever rich the knowledge and belief held by researchers or policy makers about education policies would not enable teachers to improve their teaching practices unless they hold the same understanding and beliefs" (p. 78).

A highly capable teacher will make a difference in student learning achievement. This is a common measure of education quality. It is true as Talis (OECD, 2009) suggests that the greatest variation in student learning outcomes lies in differences among individual teachers rather than among schools or countries. It means that no matter how high the school quality and where a school is located, quality of teachers remains important. The professionally competent teachers will be able to best perform in making students learn toward the optimum level of achievement. However, to become competent professionals, teachers need protection, encouragement, and help from school and district management to enable them to innovate freely and teach innovatively. A professional teacher promises a high quality of teaching service

while using his or her qualification and level of competencies required. Chang *et al* (2012) point out that the effect of teacher licensure on improvement of education quality in Indonesia depends on the extent to which teachers' competencies and their existing teaching practices improve.

The Teacher Act states that none could become teachers unless they are academically qualified and professionally competent to play their roles as learning agent over time. To become a professional teacher one must have at least a Bachelor's Degree or Diploma 4 related to his or her teaching fields. The Ministerial Decree No. 63/2006 stipulates that "as professional, a teacher should possess certain level of capability that lies in four areas of competencies, i.e. pedagogic, professional, personality, and social competencies." This is in line with the assertion that minimum degree of qualification and competence is required for teacher to perform better in teaching and improve student learning at all times (Jalal, 2006).

Since the Teacher Act was issued in 2005, Indonesia has invested significant endeavor to ensure a sustainable improvement of teacher competency and teaching performance. Suryadi (2016) figures out that the government allocates at least US$ 6.2 Billion each year to spend for allowances for the certified teachers. The government has also allocated some US$ 1.8 Billion to spend on school grants each year to procure teaching aids, transports, and additional salary to help teachers teach better. This is such a huge sum of investment to which the previous Minister of Finance once said that this extra-ordinary public spending might have robbed the national budget as she was yet unconvinced that the investment was worthwhile.

Ten years have passed and people begin to raise a critical question whether the licensure project does accomplish its mission. People need strong evidence to prove that the investment enables teachers to promote their teaching performance and thus boost students' learning. To answer the question, the Ministry of Education has the challenge to carry out a national scale robust evaluation study to prove that the certification has been cost effective. The government has to ensure that effect of teacher certification on strengthening the teaching force is real after the ten-year implementation. The study will also be able to generate feedback for improvement by way of reforming teacher training and management as an integral part of teacher licensure.

At the outset, the government has successfully convinced the parliament that the proposed certification program is conceptually sensible. In fact, at its birth in 2005 the teacher certification was a more politically supported rather than an empirically proven program. The program suddenly became popular as national priority, imposing the Ministry of Finance to allocate the extraordinary amount of the central budget (Chang *et al*, 2014). To improve the quality of teaching force was assumed to be the single most important factor for the Indonesian education to excel. In reality however, improving professionalism of Indonesian teachers faces some structural obstacles embedded in the existing profile of teacher training and management system. The existing tradition of

teacher management did not change in the same direction since the central bureaucracy exercises control over all teachers throughout the country, assuming that teachers are to play their administrative roles more than their professional ones.

The problems teachers in Indonesia face fall under at least three major policy issues: quantity, quality and management.

Teacher Quantity Issue

No inherent mistake lies in a teacher certification program. However, a massive teacher certification within a relatively short period could be a managerial mistake at least Japan started to certify their teachers in the year 2005; so did Indonesia. In Japan, up to 2013 only 3.7% of primary, 6.5% of lower secondary, and 22.5% of upper secondary teachers had been licensed (Umezawa, 2013). At almost the same time, Indonesia had given certificates to more than 1.5 million teachers, 68% of the teaching force. Therefore, certifying the huge number of teachers within a relatively short period would unlikely be cost effective in the absence of teacher training and management reforms.

It would be difficult for teacher quality improvement to be a success unless the number of teachers is stable and equally deployed. The class size indicated by the pupil-teacher ratio (PTR) is among the quick measures of teacher quantity. Studies in different countries have shown that class size affects students' learning and achievement (Hoxby, 2000). Kornfeld (2010) too shows that the smaller the class size, the better the students can learn. Hoxby's (2000) analysis on education statistics also shows that the magnitude of PTR is associated in reverse with the level of reading proficiency among students in two grade levels of the American schools. The trend is consistent: the higher the PTR the less would be the reading proficiency of students at the 4th and 8th grade levels respectively.

Table 1 shows the magnitude of Indonesia's PTR as compared to those in the number of countries. The trend roughly indicates the reverse association between the magnitude of PTR and development level of a country; the more developed a country is the lower the magnitude of PTR and the higher the quality of education would be (Hoxby, 2000). However, this is not the case in Indonesia since the magnitude of class size happens to be unstable as indicated by the unstable magnitude of the PTR.

Table 1
Country Comparison of the Pupil-Teacher Ratio in Basic Education by Country, 2009-2013

No	Country	2009	2010	2011	2012	2013
1	Sub-Saharan Africa	45	43	43	43	42
4	OECD means	16	16	16	16	16
5	Indonesia	20	19	19	19	18
6	Japan	18	18	17	17	17
7	Cambodia	49	48	47	46	47
8	Korea, Rep.	22	21	19	19	18
9	Lao PDR	29	29	27	27	26
10	Malaysia	13	13	12	12	12
11	Philippines	31	31	31	31	31
13	Thailand	16	16	16	16	16
14	Timor-Leste	30	30	31	31	32
16	Vietnam	20	20	20	19	19
17	World	25	24	24	24	24

Source: World Bank (2014)

For many developing countries like Indonesia, the PTR is also a quick-look indicator of school quality. In 2015, Indonesia managed slightly more than three million teachers to serve almost 50 million primary and secondary students unevenly distributed in 34 provinces and 500 districts or so. Table 2 shows that the national aggregate of PTR in Indonesia, at 1:18, was somewhat comparable to those of some developed countries such as Japan and Korea, Republic. This is very much unlikely since the way to compute PTR is technically different from that in those countries. Officially, the average PTR as defined by the Ministry of Education was even much lower, such as at 1:15 as shown in Table 3. This could be due to a bias in computing the PTR since budget wise Indonesia has faced with difficulties in recruiting new full time teachers within the previous 5 years.

The magnitude of PTR in Indonesia is puzzling since the ratio stands for all teaching force; this could be misleading the indicator since the part-timers were all included in the computation of the ratio. In fact, the part time teachers in Indonesia were in average low in quality since their selection process was attributable to the urgent needs to cover up the number of teachers that was lacking (Ace Suryadi, 2014). In addition, the part timers worked under unstable conditions since they were not entitled to certifications and thus leading to high turnover rate of teachers.

Table 2

Pupils Teacher Ratio by School Levels in Indonesia, Year 2015

			Students Teacher Ratio:
No.	School Levels	Full Time Teachers	All Teachers
1	Primary	22	15
2	Lower Secondary	20	14
3	Upper Secondary	17	13
4	Vocational Upper Secondary	24	19
	Total	21	15

Source: PDSP, MOEC (2015)

As shown in Table 3, there are many kinds of part time teachers in Indonesia. They are Central Government, Provincial Government, Local Government, Public Schools, and Private Schools recruited part timers. In 2014, the part time teachers stood at nearly 840 thousand, almost one-third of all teaching force in the country. As long as the number of full time teachers was concerned, the PTR in Indonesia was typical of a developing country. Table 3 shows that the national aggregate PTR stands at 1:21, far larger than the official figure cited by the World Bank shown in Table 1. The magnitude PTR could be even higher unless the immediate retired teachers were excluded from the computation of the PTR, such as at 3.7% each year or almost 15% within four years to come (MOEC, 2014).

Table 3

Number of Teachers by Occupational Status, Indonesia 2014

No.	Status of Teachers	Number	%
1.	**Full Time Teachers in:**	**2.181.320**	**72,3**
	• Public School	1,677,165	55.62
	• Private Schools	504,155	16.72
2.	**Part Time Teachers in:**	**833.995**	**27,7**
	• Public Schools recruited	600,648	19.92
	• Private Schools recruited	120,476	4.00
	• Central Government recruited	5,257	0.17
	• Provincial Gov. recruited	14,946	0.50
	• Local Government recruited	92,668	3.07
	Total	3,015,315	100

Source: PDSP, MOEC Indonesia

The PTR, at 1:21, was actually suitable for Indonesia with the assumption that teachers were evenly deployed and properly utilized. In contrast, the distributing pattern of teachers in Indonesia looks somewhat unacceptable. The school qualitative study in West Java (Suryadi, Wahyudin & Riyana, 2016b)

found that the teacher deployment between rural and urban areas was extremely uneven. The proportion of part time teachers in rural schools was up to 60% per school and the PTR was at 1:35 or even larger. Almost all remote primary schools were extremely small with only 2-3 part time teachers to serve around 50 students; in those schools, only headmasters were in full time service. With the assumption of equal distribution of teachers, Sarjunani (2014) estimated that increasing PTR up to 1:22 would be more cost effective and could save up to US$ 2.5 Billion each year to spend for teacher salary. This estimate again could be ineffective unless the government established an equal deployment of teachers.

The World Bank suggests that no successful teacher development would work no matter how much money the government has and would invest in teacher in-service training (Chang, 2012). Indonesia faces major obstacle such as too many incompetent teachers in its teaching force. It would be extremely costly to upgrade them. Thus, now is a perfect time to downsize the number of teachers, selecting te most competent and highly performed while increasing the PTR to 1:22 or even higher. However, to achieve the effectiveness, reducing the number of teachers will not work that well unless at the same time the quality of teacher colleges improve. Preparing more competent but smaller quantity of new teachers should be the aim.

The problems faced by teacher colleges in Indonesia are multi dimensional and even more complex than thought. Suryadi (2016) mentions that the private teacher colleges in the country is extremely large and continue to grow producing excessive number of graduate teachers whose competencies are predicted at below expected level. The number of private teacher colleges is now 500 or so; they are mostly unaccredited and a bit mediocre (Kartadinata, 2013). In 2015, the total number of student teachers was more than 600 thousand, however, the share of public teacher colleges to the number of graduates was very small; among 60 thousands of the total graduates each year, only one-fifth of them graduated from the public teacher colleges (DGHE, 2013). The public teacher colleges consist of 12 normal universities and 12 Schools of Education were under the public universities. Though very small in number, the graduates of public teacher colleges are in average much better in quality. Despite the extremely small absorption capacity of teacher employment, the public teacher colleges are in fact more than enough to supply new better quality teachers.

To date, no such institution in the country held responsible to implement and maintain an information-based teacher supply-demand planning system. There is no established institutional mechanism that functions to estimate the official number of needed teachers, from the school to national aggregate levels based on the most updated data. Estimating the real demand of teachers will require a teacher-planning model to estimate the teacher's surpluses or shortages overtime. This model assumes that the school is the most relevant institution to determine and propose a real number of new teachers needed; this will enable the teacher colleges to start determining the best-selected number

of new students admitted annually and prepare them to be prospective better teachers.

Teacher Quality Issue

It was hard to ensure that the 1.5 million certified teachers were professionally competent and highly performed in teaching. The extremely low average score at 44.5 out of the 100 scale on the Teacher Competency Test (TCT) showed a great challenge for the Ministry to help the teacher colleges prepare new teachers to be more competent (Rosyidi, 2014). This low average score showed that the *robbery hypotheses* asserted by the Minister of Finance had become a reality. One might expect that the low average level of competency score does not reflect teachers' performance in teaching. However, Indonesia's international school assessment on mathematics and science literacy ranking (PISA) as well as academia's TIMSS (Martin et al, 2013) did stand as initial signatures to indicate the inability of teachers in boosting student quality of learning.

In the years to come, the government has a challenge to examine whether the teacher competence had improved since 2005. A few studies have unproven that the teacher license program is consistently effective in improving teacher competency. However, it is clear that certification has increased the average income of certified teachers; in a normal management practices increasing workers' salary is an important means of boosting their level of productivity. The problem isthat the government of Indonesia rarely capitalizes on the salary increase to become a management tool to push teachers' competency. Therefore, promoting a merit-based remuneration applied to the overall teacher training and management is extremely important in putting the teacher certification into effect.

Chang et al (2012) find how significant the effect of certification is on doubling salary of the certified teachers and making them wealthier than ever. However, this is not the right issue to address; the government is instead responsible to examine whether the certification program which consumes almost one-third of national education budget, would be worth continuing. To date, no clear evidence has shown that increased allowance of teachers has firmly improved their competency and teaching performance. Indonesia needs to address this issue since Cohn & Rossmiller (1987) suggest that the effect of salary increase on student learning is not always positive and it depends solely on the quality of teaching and learning processes the teachers are able to create.

The massive certification in Indonesia is unlikely to help teachers improve their quality of teaching and learning processes. Chang, *et al* (2012) enlighten the problem slightly more clearly; their study find no significant correlation between teacher certification and the average test scores of teacher competency, and no correlation between teacher certification and average score of student academic achievement. The findings essentially indicate that the increased teacher allowance has not enabled teachers to improve their performance and motivate students to learn better.

The study by Suryadi and Budimansyah (2016) find that no promise offered by the certified teachers could cause a higher level of student learning since student achievement is affected more powerfully by socio-economic background rather than that by the real competencies of teachers. To the most extent, this failure is attributed to the absence of a merit-based promotion reform in the teacher training system which should be in line with the nature of professional certification. Budimansyah et al (2012) conclude that the certified teachers are mostly older in age or have bachelor's degrees or above but they are not necessarily competent. . In other words, the certificate only functions as the label of teacher's seniority and credentials rather than the symbol of their real competencies and performance.

Table 4

The Effects of Teachers' Characteristics on Their Certification (R-Square= 0,354)

Regression Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	S.E	Beta		
1. (Constant)	.880	.067		13.063	.000
2. Teacher's Experience	.022	.002	.394	13.613	.000
3. Teacher Ed. Background	.176	.018	.283	9.819	.000
4. Teacher Competency	-.017	.003	-.174	-6.486	.000

Source: Budimansyah & Suryadi (2012)

The merit-based selection is such a fundamental nature of any professional certification (Goldheber *et al,* 2000). In a normal management circumstance, reward given to those unperforming is such a philosophical error. The rsearchers from Cornell University in their studies conclude that in the United States of America, teacher qualification and certification are positively associated to the measured student achievement. Goldheber *et al* (2000) find that academic qualification of teacher affects on student achievement, only if the teachers' educational background is relevant to subject matters they teach. It happens also in Japan as Umezawa (2013) suggests that: teacher certification started in 2005 and was followed by a strengthening of the system of continuing professional development (CPD) which was instrumental for teachers to get promoted due to improvement in their competency.

The reverse correlation between certification and teacher competence happens to be the observed reality in Indonesia. This is such a paradox. Budimansyah et al (2012) observe that teachers' allowance tends to function as incentive to those actually incompetence, and at the same time as disincentive for those who perform better. This is a real phenomenon indicating that teachers badly need to be motivated. A merit-based mechanism is needed for them to be promoted and to get better pay.

Suryadarma et al (2006) for example consistently observe that schools with teachers and headmaster who are certified and better academic qualified,

and have more experience do not always have students with better performance as measured terms by the average national examination scores. The same is true of the CPD for teachers, —the "Bermutu project" has unlikely been effective in promoting the successful certification program. Therefore, having a comprehensive teacher training and management reforms would be one of the most important policy issues to address a systematic resolution of existing teacher obstacles.

Teacher Management Issue

Certification is just like seeds that can grow better only if the farm soil is well maintained and fertilized (Suryadi, 2016). Certification would not work any better unless reforms of the existing teacher training and management system take place. The newly imposed certification program is just like strange bodies in the existing bureaucratic system; they grow very slowly since it depends too much on the government financing without any expected pay off. Suryadi et al (2009) suggest that the certification program could become a good medicine to cure an illness only if the government sets up, implements a merit-based, and evidence-supported teacher training, promotion and remuneration, and a continuing professional development system.

To date no sufficient evidence has proved that teacher certification is successful since no national scale and well-designed study has taken place since the first day money was invested. In the absence of evaluation studies, no endeavor aiming at improving the certification program could escape from the trial and error syndrome (Suryadi, 2016). For example, applying a tighter formula of teacher certification as the newly established program in the Ministry would not work well since virtually no reform took place on teacher management practices (Rosyidi, 2014). Besides, the tighter formula may not be applicable to those 1.5 million teachers already certified; this is such a piecemeal solution to the very fundamental problem, hence, the results remain the same.

No significant reform in teacher management took place in support for a successful certification program. Since the start of the certification, the government actually has built a World Bank-sponsored continuing professional development (CPD) program, known as "Bermutu' project. The project aimed to establish a sustainable mechanism of teacher in-service training system through clustering of subject-specific teachers learning groups at both school and district levels. This project had unlikely transferred itself successfully into routine mechanism upon closing of the project. Suryadi et al (2014) shows that the number of retraining received by teachers was a lot more frequent before rather than after certification. Again, it shows that no reforms in teacher pre- and in-service training and management took place following the certification program.

Based on the Civil Servant Act No 43/1999 teachers are the state's employees -- ordinary civil servants. This legislation is incongruent with teacher professionalism as stipulated in the concerned Education Act as well as the Teacher Act. The regulation on civil servants is driven by a mechnism normally applicable to the government bureaucracy; the salary and promotion are

attributable more to credential and seniority of teachers rather than to their performance. As professionals like medical doctors or accountants, teachers' bargaining power is reflected in the quality of their competency-base services. Until present however, teacher competency and performance had scarcely been taken into account in the selection, promotion and remuneration of certified teachers.

In the bureaucratic system, one's authority may not be associated similarly with his/her competency and performance; the most competent person is one who holds an official power to exercise control over the whole parts of an organization (Day et al, 2000). The central authorities exercise their power through long chain of commands from the central down to district offices to which the schools and teachers should follow. Conversely, in the professional world the concept of authority is poles apart; anyone could have authority by achieving a great deal of competencies in a field of profession to best serve the needy.

In the bureaucratic climate, teachers all over the country are to conform to the chain of commands from the top bureaucratic leaders. It is a paradox because bureaucracy is like an unfertile land enabling the teaching profession to grow improperly. The central control frequently do not meet the needs of teachers as the latter have to face different and varied circumstances in schools and localities. Therefore, since its conception, the teacher licensure has faced with structural problems that borned from the bureaucratic environment. Up till today, it is very hard to find genuine professional teachers under the severe influences of bureaucratic system since it often discourages teachers to perform well.

Until present, the teacher planning, training, recruitment and remuneration processes work under the control of central bureaucracy. The three millions, unevenly distributed teachers throughout the 34 provinces and 500 districts or so are difficult if not impossible to manage under the central authority (Rosyidi, 2014). In years to come, reforms on teacher management, in line with the Teacher Act No. 14/2005 and the Regional Government Act No. 23/2014, would be one of the most important policy issues for the government to address as top priority. One simple example, the Central Government's estimate of the number of teachers demanded would never have matched the real needs of individual schools using national aggregate data. The decentralized education system has started to work years ago, though the central government has given only very limited help to local offices in managing teachers effectively. Therefore, developing local government capacities in teacher planning practices is among the most imperative strategies for the government to deal with.

To date the bureaucracy remains severe at the overall management level. Using the bureaucratic approach, the headmasters would be unable to create a professional climate for teachers to better learn and teach. The school principals in Indonesia are in fact less prepared to become the real professional school leaders by way of the existing pre- and in-service training system. The principals instead are teachers with their additional responsibility to carry out

some administrative chores (Suryadi et al, 2016). The selection and promotion system of school principals too did not actually consider their professional competencies. Therefore, it would run the risks of relying solely on the role of the existing statutorily defined principals for the successful school management. This implies that school management reforms are among the most important choices in support for a successful teacher development after certification. Clearly, Indonesia needs the most relevant approach to reconceptualize school principals as the professional agents of change rather than as the extended hand of bureaucracy.

Conclusion and Recommendation

There is no inherent conflict existing between the quality and quantity issues which resulted from the teaching license program. However, the intention of the government to certify the great number of teachers in a very short period could have been a managerial mistake since it will ruin the efforts to improve professional competence of teachers. The quality of the one-third, part-time teachers in Indonesian teaching force unevenly distributed throughout the Archipelago has probably led to unsuccessful certification since the teachers are not eligible in the eyes of the Indonesian licensure program. These are the prevailing obstacles that are likely to lead to an unsuccessful licensure program. They hamper efforts to make the education system highly competitive.

Not much evidence has shown that the teacher licensure program in Indonesia has proven successful. Until recently, no national scale and robust-designed study has taken place since the program initially started. In the absence of evaluation studies, no endeavor aims at improving the program could escape from the *trial and error* syndrome. This results in very fundamental problems remaining unsolved. Since then, neither major reform in teacher management nor in teacher pre- and in-service training systems have taken place This unsuccessful certification program is likely to be attributed to the absence of reforms toward merit-based and professional approaches to teacher training and management system in the country.

As professionals, teachers are the well-trained individuals who can teach and manage students' learning effectively. The certified teachers need a great deal of support from a professionally conducive environment. In the existing bureaucratic management system, it is very hard to find a managerial climate in schools that enables teachers to innovate freely and work better. It is conceptually wrong to manage teachers through bureaucracy since teachers are essentially professionals. The successful teachers are those who serve better and provide satisfaction for students to learn. In the absence of this managerial climate, the problems faced by the teachers to work effectively would become even more complex in the future.

After ten years of implementation, it is now the right time to carry out a robust and well-designed national scale evaluation of the teacher certification program. This is important for the government to obtain some clear pictures about the extent to which teacher licensure program is successful. Teacher

certification is not a universal remedy in solving the teacher quality problems unless the relevant teacher training and management reforms follow through. The government can start reviewing the existing laws and regulations irrelevant to the establishment of teacher professionalism. The professional teachers need a favorable climate that helps them improve their competency and performance in teaching. Thus, reforms in teacher training and management are important to deter damaging effects of bureaucracy on the merit-based training, recruitment, promotion and remuneration of teachers as professionals.

Finally, in the near future it needs to start reviewing the existing use of the structure, content, and formulation of teacher competency standards. These ten-year implemented teacher standards could be obsolete for use in line with the changing demand for quality education, notably in response to the ASEAN economic integration. The education system in each of the ASEAN countries needs to set up competency and performance standards of teachers based on a strong international benchmarking system. This enables the quality of teachers to be compared among the standards used in each of ASEAN member countries. This study urges the Association of Southeast Asian Teacher Education Network to start developing common standards of teacher and teacher education so as to establish an "ASEAN Teacher Education Quality Assurance System."

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EDUCATIONAL ADMINISTRATION AND ITS REFORMS IN CAMBODIA

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Abstract

The reason why Cambodia needs to intensively reform the domain of education is that the results of grade 12 national examinations in academic years 2013-2014 and 2014-2015 were not satisfactory and were far below the average. To solve this issue, the Ministry of Education, Youth, and Sport (MoEYS) has prioritized its intensive reform. The five pillars which are the central focuses of the reform such as (1) Teachers, (2) Curriculum, (3) Inspection, (4) Assessment and Evaluation, and (5) Higher Education, have been firstly defined. Based upon these pillars, eight priority areas of reform namely (1) Enhancing Quality and Effective Education Service, (2) Strengthening Personnel Management, (3) Strengthening All Types of Examinations, (4) Higher Education Reform, (5) Technical Skills and Soft Skill Development for Youth, (6) In-depth Implementation of Public Financial Management Reform, (7) Reform of Physical Education and Sport, and (8) Education Think Tank, have been secondly targeted. Through monitoring and evaluating the significant and constant progress over the one-year period of implementation in 2013, the MoEYS, once again in 2014, has extended its reform program from eight to fifteen points. It has been considered that the suggested targeting areas for reform are on the right track, and as the result, the MoEYS will surely achieve its goals as scheduled. In this chapter, the following ideas are recommended for more effective implementation in all the processes of the MoEYS's targets for reform: (1) The MoEYS should publicly disseminate its intension of reform, particularly the target areas of reform, (2) The MoEYS should seek for advocacy from the Royal Government, Development partners, Donor countries, and other relevant agencies, (3) The MoEYS should encourage and speed up its proper implementation of reform, (4) The MoEYS should regularly follow up the progress of each of the 15 areas of reform, (5) The MoEYS should conduct the mid-term review of the ESP 2014-2018, and (6) The MoEYS should make itself ready in providing its input, preparing precise targets and indicators, and scheduling, but being flexible in carrying out these areas of reform.

Keywords: five pillars, teachers, curriculum, inspection, assessment and evaluation, higher education

Introduction

Cambodia, a country located in Southeast Asia with its total land area of 181, 035 square kilometers and with an estimated population of 15 millions, shares the border with Vietnam to the east, Laos to the north, Thailand to the west, and the ocean coast to the southwest. The capital city of this country is Phnom Penh.This country has suffered repeated disasters, social splits, and chronic wars, which had ruined its social economy and infrastructure, for more than three decades (1970-1998). Thus, its education program was significantly weakened. In rebuilding the country, the Ministry of Education, Youth, and Sport (MoEYS) has been working very hard to meet the learning needs of the children notwithstanding a lack in everything. Now Cambodia is at a new turning point in its history. After the ASEAN integration, Cambodia has supported economic liberalization and competitive participation in international market arenas. Investment is flowing into Cambodia, which now needs a labor force with technical skills at all levels. The MoEYS, therefore, has to deal with this need as much as it possibly can. The Cambodian education policy as stated in the "Education Strategic Plan 2014-2018" puts more emphasis on three aspects, such as ensuring equitable access for all education services; enhancing the quality and relevance of learning; and ensuring effective leadership and management of education staff at all levels. Here, it should be emphasized that the education system in Cambodia is controlled by the state through the MoEYS at the national level, and by the Department of Education at the provincial level.

The System of Education in Cambodia

The Cambodian system of education has been changed many times in its history. For instance, before 1975, Cambodia adopted the French system of education (6+4+2+1). This means that there were 6 years of primary education, 4 years of lower secondary education, and 3 years of upper secondary education with 4 or 5 major examinations. From 1975 to 1979, there was no formal system of education as the country was turned into the Killing Field by the Khmer Rouge regime. The education system of Cambodia re-survived in 1979 after the collapse of the Khmer Rouge regime. From 1979 to 1986, in response to the huge amount of the enrolment, after the Killing Field, Cambodia adopted a 10-year education system. This means that there were 4 years of primary education, 3 years of lower secondary education and 3 years of upper secondary education with 3 national examinations in which those examinations were conducted at the end of each educational level, and the examination papers were prepared by the MoEYS. From 1986 to 1996, one would take 11 years to complete general education. That means there were 5 years of primary schools, 3 years of lower secondary schools, and 3 years of upper secondary schools with 3 national examinations in which those examinations were conducted at the end of each educational level and the examination papers were prepared by the MoEYS. The 12-year system of education in Cambodia started from 1996 onwards, and it has

the 1 + 1 + 3 system, which means the students from grades 1 to 6 in primary schools and the students from grades 7 to 9 in lower secondary schools follow the curriculum set by the MoEYS. However, when the students get to grade 10, they can have three options and/or three strands, which means they can go to strand 1 (social science), strand 2 (natural science) and strand 3 (technical education). There are two national examinations, which are conducted at the end of grade 9 and at the end of grade 12. The details of which are shown in Table 1.

Table 1
The System of Education in Cambodia: Past and Present

Years	System Of Education
Prior to 1863	Not standardized (Wat schools)
From 1863 to 1953	The French Model (6+4+2+1)
From 1953 to 1970 (French system of education)	
From 1970 to 1975 (French system of education)	
From 1975 to 1979 (Khmer Rouge regime)	No formal education conduced (The country was known to the world as the Killing Field)
From 1979 to 1986	10 years (4+3+3)
From 1986 to 1996	11 years (5+3+3)
From 1996 up to the present time	12 years (6+3+3) Strands: [1+1+3 (Science, Social Science, Technical Education)]

Currently, the Cambodian Education System, with its core values: Learn to Know, Learn to Do, Learn to Be, and Learn to Live Together, includes pre-school, primary schools, lower secondary schools, upper secondary schools, higher education, teacher training programs and non-formal education. The education system includes also the development of sports, information technology education, research development and technical education. See Table 2 for the current system of education in Cambodia.

Table 2

The Current System of Education in Cambodia

Official ages	PreSchool	Primary School	Grades/Levels Lower Secondary School	Upper Secondary School	Higher Education	Teacher Training Programs	Non-formal education
3, 4, 5	K1, K2, K3						
6, 7, 8		1, 2, 3 (First cycle)					
9, 10, 11		4, 5, 6 (Second cycle)					
12, 13, 14			7, 8, 9				
15, 16, 17				10, 11, 12			

18 on-wards   4 years (Bachelor's Degree)
2 years (Minimum requirement) (Master's Degree)
3 years (Minimum requirement) (Doctoral Degree: PhD, EdD)
- Pre School Teacher Training Center (01)
-- Produces teachers for pre schools/kindergartens
-- Training duration 2 years
- Provincial Teacher Training Centers (18)
-- Produces teachers for primary schools
-- Training duration 2 years
- Regional Teacher Training Centers (06)
-- Produces teachers for lower secondary schools
-- Training duration 2 years
- National Institute of Education (01)
-- Produces teachers for upper secondary schools
-- Training duration 1 year

Regard-less of ages   **Non-formal education**

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According to the statistics of education in the academic year 2015-2016, the total number of educational staff was 115,305 (female 50,145), which was equal to 43.49% of the nationwide government staff. Among those, the staff at the national level was 3,051 (female 825), which was equal to 27.04%. The staff at the sub-national level was 112,254 (female 49,320), which was equal to 43.94%, and the staff who had been trained to become school inspectors included 77 (female 14) inspectors of primary schools, and 42 (female 13) were inspectors of secondary schools. See Table 3 for more information.

Table 3
Number of Staff in the MoEYS (2015-2016)

Total Number of Staff	Staff of National Level	Staff of Sub-National Level
115,305 (F=50,145) = 43.49%	3,051 (F=825) = 27.04%	112,254(F=49,320) = 43.94%

Based on the academic year 2015-2016, Cambodia had 16,595 schools, which could accommodate 3,582,476 pupils and students. Cambodia has 7,913 pre-schools, 7,348 primary schools, 1,294 lower secondary schools, 571 upper secondary schools, 3 technical and general upper secondary schools and 347 community schools. See Table 4 for the details.

Table 4
Number of Schools and Teachers in the Cambodian General Education (2015-2016)

Classification of Schools(School Levels)	Number of Schools	Number of Teachers	Percentage of Teachers
Pre schools	7,913	3,369 (F=3301)	97.94%
Primary schools	7,348	56,423 (F=26,923)	47.71%
Lower secondary schools	1,294	41,466 (F=16,005)	38.60%
Upper secondary schools	571	13, 751 (F=3,858)	28.06%
Technical and general upper secondary schools	3	179 (F=31)	17.32%
Community schools	347	N/A	N/A

Teacher Training system

Many researchers have argued that the teacher is one of the crucial factors in the effective response for the improvement of education (Fullan & Miles, 1992, Walker 7 Cheong, 1996). For students, a teacher is the source of knowledge and information, and he or she acts as a guide, a counselor, a big brother or sister, or an assistant in the effective learning. The quality of students'

learning is dependent upon the quality of teaching that they receive from school (Jenkins, 1998). For effective learning, the teacher plays the roles of managing a class of students, structuring a lesson and evaluating students' learning. The teacher must understand the phenomena involved in teaching and learning processes. To achieve this, the teacher is expected to possess high qualifications and to have updated knowledge. He or she should master the information not only to understand the contents but also to deal with many types and resources of the information available. Disappointingly, the shortage of qualified teachers has been the major concern in the field of education in many countries. Cambodia is not an exception. Many primary school teachers were recruited from the literate people in the emergency period between 1979 and 1981 (a few years after the collapse of the Khmer Rouge regime). No educational certificates were issued or any defined school grade level was set up for the teacher candidates. The educational motto "The learned people teach the unlearned ones and the most learned people teach the less learned ones" was applied everywhere in the country (Neth & Wakabayashi, 1999). During this period, the newly recruited teachers were provided with only short-term training courses, ranging from one week to one month, focusing only on the presentation of the political situation and general knowledge. No attention was paid to the teaching skills and specialized knowledge in the training. From 1982-83, there were about 32,500 teachers with various qualifications working in the schools in response to a massive enrolment of students.

To alleviate such a situation, the MoEYS of the Royal government of Cambodia (RGC) tried to make the change and to improve the capability of teachers through both pre-service and in-service teacher training, with the belief that teacher education is a key contributing factor in the drive of the Ministry to bring about the reforms in the education sector. It is also seen as the fundamental step to the achievement of goals such as "Education for All", especially the goals related to quality improvement, and the alleviation of poverty.

The teacher training was reopened in 1979 at the normal school (the former faculty of Pedagogy and is now the National Institute of Education [NIE]). The objectives of the teacher training programs are: firstly, to ensure an effective supply of teachers for all education level;, secondly, to ensure that the number of new intakes of all Teacher Training Centers (TTCs) and NIE and the subsequent deployment of new teachers should favorably respond to the growing demand for teachers in rural/remote and disadvantaged areas; and finally, to improve the quality of teaching through expansion of in-service teacher training. To be a teacher in Cambodia, he/she needs to acquire the regular certificate by completing the teacher training courses at the teacher Training Institutions. The certificate of a teacher is valid nationally for life. There are 4 types of teacher certificates namely, kindergarten, primary, lower secondary and teacher with higher education (for teaching at Upper Secondary school and higher education institution) teacher certificates. For those who wish to become teachers of kindergartens, they have to go for their pre-service

training for 2 years at the National Pre-School Teacher Training Center (NPSTTC), and there is only one training center in Cambodia. For those who wish to become teachers of primary schools, they have to go for their pre-service training for 2 years at Provincial Teacher Training Center (PTTCs), and there are 18 PTTCs throughout the country. For those who want to become teachers of lower secondary schools, they go for their pre-service training for 2 years at Regional Teacher Training Centers (RTTCs), and there are 6 RTTCs in the country. For those who wish to become teachers of upper secondary schools, they have to go for their 1-year pre-service training at National Institute of Education (NIE), and there is only one place in the capital city of Phnom Penh. Up to now there are 27 institutions training teachers for the specific level as indicated in Table 5.

Table 5
Teacher Training System in Cambodia

Training Institution	Number of Institute	Admission Requirement	Training Period	Certificate
National Pre-school Teacher Training Center (NPSTTC)	1	Lower/Upper-secondary	2 years	Pre-school teacher certificate
Provincial Teacher Training Center (PTTC)	18	Lower/Upper-secondary graduates	2 years	Primary school teacher certificate
Regional Teacher Training Center(RTTC)	6	Upper-secondary graduates	2 years	Lower-secondary school teacher certificate
National Institute of Education (NIE)	1	University graduate	1 years	Upper-secondary school teacher certificate
National Institute of sports training	1	Upper-secondary graduates	2 years	Lower-secondary school teacher of sports certificate

The Educational reforms

The Cambodia's MoEYS introduced eight prioritized points in the intensive reform of the educational sector in 2013. By observing and seeing its significant progress over the one-year period of implementation, the MoEYS, once again, extended its reform program from eight to fifteen points. This intensive reform was based on the five pillars which were officially set by the MoEYS, namely (1) Teachers, (2) Curriculum, (3) Inspection, (4) Assessment and Evaluation, and (5) Higher Education. The details of which are shown in Table 6.

Table 6

The five Pillars

The Pillars	Descriptions
1. Teachers (The Implementation of Teacher Policy Action Plan)	• To attract those who are academically competent to serve as teachers • To strengthen the teacher training programs at all levels through the improvement of the training curriculum, teacher capacity building, teacher quality, and teacher qualifications • To strengthen the effectiveness of teacher management • To develop professionalism of teachers • To motivate and retain teachers in the system • To strengthen good governance of institutions
2. Curriculum (The Review of Curriculum, Textbooks, and School Environment)	• To review textbooks and curriculum of mathematics, science, history, and Khmer literature • To build additional secondary schools • To prepare programs for school hygiene and sanitation • To increase budget for economically poor students
3. Inspections (The Implementation of Inspections)	• To prepare regulations and tools for inspections (Guidebooks, Tools and Working Groups) • To train more inspectors (in addition to the existing inspectors, new inspectors were also selected, through examinations, for training)
4. Assessment and Evaluation (Strengthening Academic Assessments such as examinations, tests, and national, regional, and international assessments and evaluations)	• To strengthen examinations at all levels, particularly the grade 12 examination • To strengthen the national evaluation of grades 3, 6, and 8 for the subjects such as Khmer literature and mathematics • To prepare for the regional and international tests (trial for regional test-SEA-PLM)

5. Higher Education (Reform of Higher Education)	• To strengthen the implementation of national standard for quality assurance of higher education institutions
	• To encourage higher education institutions to offer courses which are responsive to the market needs
	• To increase activities of research
	• To strengthen the institutional governance

The Eight Prioritized Measures

The MoEYS has identified four major challenges within the educational sector, namely (1) Management of Personnel, (2) Examinations at All Levels, (3) Quality of Education, and (4) Youth with Lack of Skills. Concerning the management of personnel, there were three main challenges in 2013, such as teacher deployment, irregular promotion of salary status, and irregularities during examinations. For the state examinations, there were irregularities that made the public lose trust and confidence in this public institution. Concerning the quality of education, it was noticed that the quality of education provision was still unsatisfactory, and technical and vocational training were not responsive to the societal needs. Graduates with higher degrees of education found it hard to get well-paid employment, as their major of specialization was not highly demanded by the job market. With constant and careful observations of the above-mentioned points, and in response to those challenges, in 2013, the MoEYS has prioritized eight measures to meet the challenges. They are: (1) Enhancing Quality and Effective Education Service, (2) Strengthening Personnel Management, (3) Strengthening All Types of Examinations, (4) Higher Education Reform, (5) Technical Skills and Soft Skill Development for Youth, (6) In-depth Implementation of Public Financial Management Reform, (7) Reform of Physical Education and Sport, and (8) Education Think Tank. The details of which are shown in Table 7.

Table 7
The Eight Prioritized Measures

The Eight Prioritized Measures	Descriptions
1. Enhancing Quality and Effective Education Service	The MoEYS: • formulated the National Action Plan on Early Childhood Care and Development from 2014-2018 • planned to pilot New Generation School with the purpose of establishing an equity fund to promote livelihood of teachers and improve quality of education

- is studying the possibility of establishing model schools at secondary level with the focus on quality of teachers, implementation of internal regulations, school environment, facilities, experiment equipment and foreign languages
- proposed to construct additional secondary schools in order to increase access to education at secondary level
- has been conducting studies to increase scholarship allowances for poor students in lower secondary education and for poor and outstanding students in upper secondary education
- has developed guidelines on hygiene measures for school feeding programs and drafted the minimum standards on water, sanitation and hygiene for primary schools
- established a committee to inspect sale of not-for-sale books in the markets
- developed a Teacher Policy and Action Plan to improve quality of teachers in Cambodia
- is developing education quality assurance framework in collaboration with Swedish Education Inspectorate covering both internal and external inspection.
- is providing training for inspectors on school management and teacher inspections using new mechanism and procedures.
- finished national learning assessment of Khmer and Math subjects at grade 6 and already disseminated the results of stakeholders.
- is reviewing and improving curriculum and textbooks of all levels.
- has developed Life Skill modules for grade 4, English Textbook for grade 4 and library standards for secondary schools

2. Strengthening Personnel Management

The MoEYS:

- provided salary through the banking system to 100% education staff at national and sub-national levels, and provided motivation by integrating and adjusting grades and ranks for education staff who did not get promotion of grades or ranks by turn and seniority so far

- reviewed payment procedures of salary and allowances for newly-recruited teachers, to speed up their payment of salary and allowances in a timely manner
- applied the principle of regaining functional allowances of former education staff who have successfully passed the examination to become teacher trainees at regional teacher training centers and the National Institute of Education
- discussed with relevant ministries to increase functional allowances for education staff by combining pedagogy allowance, regional risk allowance and health risk allowance together into education functional allowances
- revised the guidelines on appointment of management staff by introducing qualification and performance rating system for individual staff to strengthen the appointment of management staff
- disseminated and implemented the guidelines on automatic promotion for education staff
- finalized the document on education staffing norm and piloted it in Phnom Penh, Kandal, Battambang, Mondulkiri and SvayRieng from 2014-2015 onwards in order to strengthen the management of education staff
- completed the document on education staff performance monitoring and evaluation, and piloted it from September 2 of 2014

3. Strengthening All Types of Examinations

Reform of examination at secondary education level has nurtured trust among candidates and parents under the slogan "Those Who Learn Will Pass". The MoEYS:

- has gained trust from stakeholders in terms of the organization of the examination by eliminating and preventing irregularities, and promoting the value of education staff
- delegated total authorities and responsibilities to each school to organize examination at lower secondary level, from designing of test papers to administering writing tests, correcting, totaling scores and announcing the results.
- For the examination at upper secondary level, MoEYS has improved management mechanism

and procedures, and how test papers are designed. There are two categories of test papers: one for science class and another for social science class. Students are required to complete test papers for 7 out of 10 subjects they have learned. There are two forms of test papers: copied form to distribute to candidates and recorded form on the board.

- cooperated with Anti-Corruption Unit to oversee the examinations of upper secondary level in writing, correcting and computer-based score recording processes by ensuring four principles are applied: Law, Fairness, Transparency and Acceptable Result.
- has adjusted composition and norm of committee of invigilators, and has increased daily allowances of invigilators at all levels for the examinations at upper secondary level.
- has tightened examinations to recruit teachers at all levels, their graduation examinations, and examinations to change internal categories of civil service.

4.	Higher Education Reform	The RG authorized higher education institutions to sign on all types of certificates, temporary certificates and copied version of certificates, and issue second copy of certificates. The MoEYS: • temporarily disallowed opening of any higher education institutions, which were not responding to priorities of socio-economic development and labor markets • has developed a policy on higher education vision 2030 and is in the process of developing a policy on scholarship, subsidy and credit scheme for learners at higher education level • encouraged public and private HEIs to develop a strategic plan and enhance research activities for professors and students.
5.	Technical Skills and Soft Skill Development for Youth	• The RG approved the National Policy on Youth development. MoEYS has also formulated the National Action Plan on Youth Development • The RG decided to establish a General Secretariat to coordinate the implementation of the National Policy on Youth Development and cooperated

		with Cellcard to install information technology system in youth centers
		• The RG decided to retain the Youth Center in Siem Reap province under MoEYS to allow youths to develop technical skills and soft skills.
		• MoEYS developed modules and provided short-course trainings on entrepreneurship and volunteerism to youths in youth centers, and launched IT center to provide youths with IT skill training.
6.	In-depth Implementation of Public Financial Management Reform	The MoEYS:
		• has cooperated with Ministry of Economy and Finance to review regulations related to expenditure including the Inter-Ministrial Prakas No. 508 SHV.PrK on Expenditure Guidelines for Program-based Budget in MoEYS by increasing amount for each expenditure item, Sub-Decree No. 174 ANKr.BK dated April 12, 2014 on Scholarship and Dormitory Living Allowances for Students in Public Higher Education Institutions by increasing the amount of scholarship and dormitory living allowances for students
		• provided guidance and authorized technical entities and POEs to prepare expenditure budget from 2015 onward including the implementation of full PB
		• established a group to be responsible for all types of procurement in order to enhance efficiency and transparency.
		• managed to save around USD 7 Million to fund the increased salary for education staff
		• reviewed the management and use of state assets and of all types of vehicles
		• strengthened the management of asset inventories through ownership titles both at national and sub-national levels
		• drafted guidelines on PB budget auditing and sent them to MEF for review and comment
7.	Reform of Physical Education and Sport	The MoEYS:
		• completed the Policy on Development of Physical Education and Sport Sectors
		• planned to establish a Management Committee to oversee the development of Olympic Stadium through a Special Operating Agency to improve

	• sport fields, main halls, drainage system and administrative buildings
	• cooperated with Cambodian Football Federation to collect athletes under 14 to train in Bati national center and national football school to prepare for SEA Games 2023 when Cambodia will be the host
8. Education Think Tank	• MoEYS established an Education Research Council to facilitate and conduct researches and development of education policies

The Prioritized Reform of the Fifteen Points

The expansion of the fifteen areas for reform is based on the progress of the one-year implementation of the eight prioritized areas reform in which its implementation is built surrounding the MoEYS's five pillars. Those fifteen areas for the reform are (1) Financial Management Reform, (2) Teacher Deployment, (3) Upgrading Teacher Training College, (4) Upgrading Teacher Qualifications, (5) Inspection Exercise, (6) Student Learning Assessment, (7) Grade 12 Examination, (8) Curriculum and Textbook Development, (9) Construction and Renovation, (10) Higher Education Institution Evaluation, (11) Enhancement of Sport Sector, (12) Implementation of Youth Development Policy, (13) Technical Education, (14) Future Generation Schools, and (15) Career Pathway and School Director Development. See Table 8 for the details of each areas of reform.

Table 8
The Prioritized Reform of the Fifteen Points

The Prioritized Reform of the Fifteen Points	Descriptions
1. Financial Management Reform	The MoEYS: • is one among ten ministries which has been implementing full priority budget • has good relations with the Ministry of Economy and Finance in the process of budget provision as well as facilitating expenditure and payment • has officially put in practices the financial management system • has been examining the relationship between priority policy and school operation budget in cooperation with the Ministry of Economy and Finance and supreme national economics council • has issued guidelines on the equipment management and supply

2. Teacher Deployment	The MoEYS has:
	• deployed teachers to remote and disadvantaged areas with the provision of additional 80,000.00 riels per month for rural areas, 100,000.00 riels per month for remote areas, and 120,000.00 riels for disadvantaged areas
	• proposed training of 3,000 basic level teachers to become upper secondary school teachers, and to be deployed based on their volunteer
	• collected information and reports from provinces concerning the shortage and surplus of teachers
	• prepared the teacher deployment policy and mechanism of transferring and exchanging working places for teacher
3. Upgrading Teacher Training College	• Education Research Council has studied the situations of teacher training centers
	• MoEYS has prepared a draft on standard of service provision for teacher training
	• MoEYS has prepared a concept note proposal on teacher training center development for JICA in cooperation with the Ministry of Economy and Finance
4. Upgrading Teacher Qualification	• The grade 12 teachers of mathematics and science have been trained
	• Criteria for teacher recruitment has been improved
	• 56 teacher trainers have been trained for master's degree
5. Inspection Exercise	• Thematic inspections of mathematics at 198 high schools in 20 provinces have been conducted
	• 32 new inspectors have been trained at the National Institute of Education
	• In cooperation with the Swedish Inspectorate, the regulation on education quality assurance has been finalized, and regular inspections at 70 high schools in 6 provinces have been carried out
6. Student Learning Assessment	• National level tests of grade 3 on Khmer literature and mathematics, and the data of questionnaire, its responses, and teachers have been entered in computer-based system
	• Reports of grade 6 tests have been completed
	• Tests of grade 8 on Khmer literature, mathematics, and science together with report writing have been analyzed

	•	Tools of regional tests (SEA-PLM) have been on trial
7. Grade 12 Examination	•	Examination results, which are based on the principles of law, fairness, transparency, and acceptable results, have been successfully announced. These were based on the slogan: "Those who study will pass."
	•	Confidence and attitudes of community and students have been strengthened and positively changed
	•	Quality reform of grade 12 examination has direct influence on their enrolment at higher education institutions
	•	Concerned, relevant, and development partners have satisfactorily advocated the reform
8. Curriculum and Textbook Development	•	Technical sub-committee of each subject has been formulated
	•	New Curriculum Framework from preschools to upper secondary schools has been drafted
	•	A workshop, with the participation from concerned, and development partners, has been organized
9. Construction and renovation	•	Has participated, monitored, and evaluated the supply of tables and chairs for primary and secondary education, as well as provided furniture for library to municipality and provincial departments of education, youth and sports
	•	Has participated and evaluated the groundbreaking ceremony of the Cambodian Institute of Technology
	•	Has studied the ADB-funded project step III in Udor Mean Chey and Kompong Thom provinces
	•	Quality of construction has been monitored and evaluated
	•	Has trained school management teams on school construction work
	•	Has participated, monitored and evaluated all construction works to ensure that the quality is met
10. Higher Education Institution Evaluation	•	The guidebook of profession has been disseminated to students who wish to enroll at higher education institutions

- The importance of science, engineering, free arts/innovation and mathematics has been disseminated
- Information, technology, and telecommunication have been integrated in the study of mathematics
- English curriculum has been prepared for students who specialize in English
- Forums for researches and development have been established
- Policy documents on long-term development of higher education have been prepared
- Data management mechanism and result-based monitoring and evaluation have been established
- Principles of internal quality assurance within higher education institutions have been established
- The standard and guidebook on assessment of higher education institutions have been adopted and prepared
- 17 higher education institutions have been trained on how to assess education quality
- Accreditation of quality for 11 higher education institutions has been done and evaluated for trial
- 46 quality assurance staff have been recruited for training

11. Enhancement of Sport Sector
- National Policy on Physical and Sport Development has been adopted
- Prakas of inter ministries on expenditure policy for national selection training and intensive policy for international tournament winners, has been prepared and corrected
- The infrastructure of Olympic stadium has been renovated
- Together with the Golden-Heart Organization, the curriculum of physical education at lower secondary schools has been continuously prepared
- A draft of sub-decree and annexes documents on stadium operation agency (SOA) have been drafted
- Principles of expenditure for annual tournaments have been prepared and corrected
- Curriculum for trainers of physical and sport education has been prepared

	• The Royal Government, in the purpose of strengthening the sport sector of all types, has permitted, in principle, the MoEYS to prepare for the National Games which are to be conducted every two years, and for four times starting from 2016 up to 2023
12. Implementation of Youth Development Policy	• A draft of action plan on the implementation of youth policy development has been finalized • In cooperation with development partners, the entrepreneurship program for training of soft skills for youth has been implemented • Pupil and youth counsels have strengthened • The Cambodia Japan Friendship Technical Center has been inaugurated • Program for youth development in educational sector has been announced, implemented, and dispatched to all provinces
13. Technical Education	The MoEYS has: • adopted the master plan and action plan on technical education of upper secondary schools • adopted the curriculum and textbooks of 5 specialties including electricity, electronics, mechanics, agriculture, and accounting, and it has published 500 textbooks per each specialty • been implementing life skills which have been taken from the list of 28 life skills at lower secondary schools • disseminated curriculum of vocational orientation and soft skills at secondary education • a trial of career counseling program in Battambang province • drafted the minimum standard for upper secondary level of general and technical education
14. Future Generation School	The MoEYS has been: • preparing concept notes of future generation school • preparing action plans for 2016 and the years after • implementing the future generation school with a focus on school governance, ICT, Technology and Communication, and Science at Sisowath high school in cooperation with development partners
15. Career Pathway and School	The MoEYS has been:

Director Development	- preparing concept notes of teacher career pathways - preparing guidebook for school directors - training school directors of all levels on leadership, management, governance, and new inspection system

Conclusions and Recommendations

The reason why Cambodia needs to intensively reform in the domain of education is that the results of grade 12 national examinations in academic years 2013-2014 and 2014-2015 were not satisfactory and were far below the average. Because of those results, the MoEYS was, without any clear reasons and/or evidence, heavily downgraded for its operational irregularities such as the examinations at all levels were improperly conducted; teachers were nationwide known as being unpunctual, unfair, and not professionally behaved; students were demotivated for many reasons, for instance textbooks were not so attractive, curriculum was not responsive to the labor markets, learning environment was not so pleasant, so on and so forth. In response to these negative impacts, the MoEYS has prioritized its intensive reform as immediately as possible. Through meetings, workshops, seminars, and conferences among relevant officials and staff of both national and sub-national levels, the priority targets for reform have been identified. The five pillars which are the central focuses of the reform such as (1) Teachers, (2) Curriculum, (3) Inspection, (4) Assessment and Evaluation, and (5) Higher Education, have been firstly defined. Based on these pillars, eight priority areas of reform namely (1) Enhancing Quality and Effective Education Service, (2) Strengthening Personnel Management, (3) Strengthening All Types of Examinations, (4) Higher Education Reform, (5) Technical Skills and Soft Skill Development for Youth, (6) In-depth Implementation of Public Financial Management Reform, (7) Reform of Physical Education and Sport, and (8) Education Think Tank, have been secondly targeted. Through monitoring and evaluating the significant and constant progress over the one-year period of implementation in 2013, the MoEYS, once again in 2014, has extended its reform program from eight to fifteen points.

With active participation, cooperation, and commitment from all levels of the MoEYS's staff, competent authorities, development communities, development partners, and all concerned people who have been involved in the Phase III Rectangular Strategy of the Royal Government of Cambodia in which its implementation is based on the MoEYS's Education Strategic Plan 2014-2018 and the MoEYS's programs of reform, it has been considered that the suggested targeting areas for reform are on the right track. As a result, the MoEYS will surely achieve its goals as scheduled. For more effective implementation in all the processes of the MoEYS's targets for reform, it is therefore recommended that:

- The MoEYS publicly disseminate its intension of reform, particularly the target areas of reform
- The MoEYS seek for advocacy from the Royal Government, Development partners, Donor countries, and other relevant agencies
- The MoEYS encourage and speed up its proper implementation of reform
- The MoEYS regularly follow up the progress of each of the 15 areas of reform
- The MoEYS conduct mid-term review of the ESP 2014-2018
- The MoEYS make itself ready in providing its input, preparing precise targets and indicators, and scheduling, but be flexible in carrying out those areas of reform

This in-depth reform has been in the process these days, and the MoEYS has, so far, been making significant progress in its reform. The targeting areas of in-depth reform, which have been identified by the MoEYS, have received good and remarkable feedback from the MoEYS's staff and from the Royal Government of the Kingdom of Cambodia, as well as its people throughout the country. However, there are still challenges, which need to be systematically solved. It has been widely known that Cambodian Education System has almost everything planned, and the only thing left to do is to put this plan into actions and get results.

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INDEX