
Title	The autonomous thinking teacher: Preparing English teachers for the 21st century
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The Autonomous Thinking Teacher: Preparing English Teachers for the 21st Century

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ABSTRACT

This concept paper describes the changes made to Singapore's initial teacher preparation (ITP) programmes with a specific focus on its thinking teacher model (NIE, 2009) – a model of teacher agency and an approach to ITP that requires self-reflection on roles and practice, understanding theories and research, and adapting to changing learner needs (Tan & Liu, 2015). An important component of this model is a 'meta' course which all pre-service teachers are required to undergo. This 'meta' course called Professional Practice and Inquiry (PPI) initiative – which was introduced to develop reflective professionals – cuts through the entire ITP programme providing them with both a framework and a platform to curate their understandings across all their courses, reflect deeply about teaching and learning and highlight their best work. This paper demonstrates, by the use of vignettes from their reflective pieces, how the goals and various components made possible by the PPI initiative provided the impetus for English pre-service teachers to develop into autonomous thinking teachers.

KEYWORDS: initial teacher preparation, teacher autonomy, professional practice and inquiry, reflective practice

Introduction

“To meet the expectations they now face, teachers need a new kind of preparation – one that enables them to go beyond “covering the curriculum” to actually enable learning for students who learn in very different ways.” (Bransford, Darling-Hammond & LePage, 2005)

This epigraph cuts to the very essence of every education system that is committed to preparing learners for the 21st century; and the teachers who will teach these exact same learners in an ever-changing environment. The “new kind of preparation” that Bransford et al (2005) suggest, requires a considerable shift in mind-set alongside the embracing of a brand-new set of dispositions pertaining to teacher learning and agency. Singapore reached this crossroads a decade ago.

This concept paper will describe the changes made to Singapore’s initial teacher preparation (ITP) programmes with a specific focus on its thinking teacher model (NIE, 2009) – a model of teacher agency and an approach to ITP that requires self-reflection on roles and practice, understanding theories and research, and adapting to changing learner needs (Tan & Liu, 2015). It will explicate features of a ‘meta’ course – called the Professional Practice and Inquiry (PPI) initiative – which all pre-service teachers undergo. PPI has become an important feature of the ITP programmes and it was introduced with the purpose of developing reflective professionals. It provides student teachers with both a framework and a platform to curate their understandings across all their courses, reflect deeply about teaching and learning and highlight their best work.

Adopting an ‘ecological’ approach to agency espoused by Priestley, Biesta & Robinson (2013) – i.e., where teacher agents will “always act by means of their environment rather than simply in their environment” (p. 3) – this paper will also demonstrate, with the use of vignettes from their reflective pieces, how the structures and environment set up through the PPI initiative form powerful enablers for pre-service teachers to develop into autonomous thinking teachers. While this initiative affects all pre-service teachers (from Arts and Humanities to Science and Physical Education), this paper will focus only on the reflective pieces of the student teachers preparing to teach English. As the number of reflective pieces discussed is small, we would like to put a caveat to this at the outset that there will be limitations to the claims that are made in the discussion section.

The Professional Practice and Inquiry (PPI) initiative

Background

Subscribing to the principle that “agency is associated with individuals who, alone or in groups, in a given situation, make decisions, take initiatives, act proactively rather than reactively, and deliberately strive and function to reach a certain end” (Imants & Van der Wal, 2020, p. 2), the PPI initiative was introduced to develop autonomous thinking teachers – individuals who are self-motivated to take the initiative to improve their practice. Autonomous thinking teachers are aware of their teacher identity, embody the professional stance of inquiry and constantly seek to innovate

their teaching so that it best nurtures the learning of students. These individuals keep abreast of the evolving educational landscape through reflection and systematic thinking (Koh & Liu, 2015; Liu, Koh & Chua, 2017; Tan & Liu 2014).

To achieve this aim, the PPI initiative – which undergirds all courses including the teaching practicum – was conceptualised to be the “glue” of the ITP at NIE (Liu et al., 2017). The Autonomous Thinking Teacher model below, illustrates the tight integration and coherence of the various ITP courses as well as how the connections between courses and practice gel together through the PPI initiative.

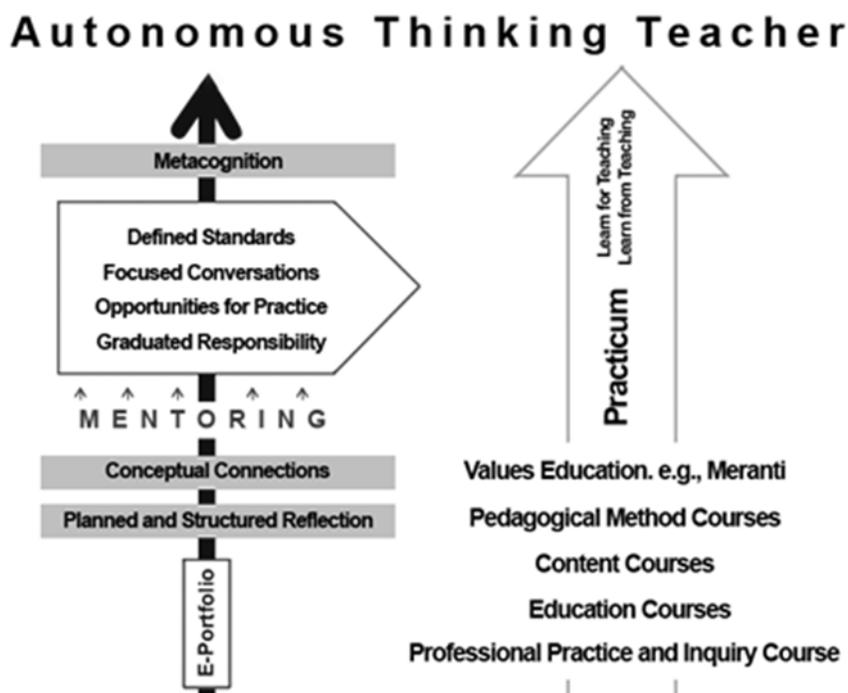


Figure 1. Autonomous Thinking Teacher Model (from Tan & Liu, 2015)

The PPI initiative which is an enabler for NIE’s thinking teacher model aims to develop teacher *professionalism* with a strong ownership of growth in professional *practice* right at the start of the ITP. Student teachers are prepared for the complexities of teaching, understand what it means to be in the teaching profession and are able to use their knowledge bases to translate them into pedagogical practices in their classroom. Since its inaugural conceptualisation and implementation in 2010, the PPI course has gained acceptance and recognition and has been made a core Educational Studies course implemented across all ITP programmes at NIE. The PPI initiative comprises 2 components: The PPI course and the Digital Portfolio.

The PPI course

The PPI course is a meta-course that seeks to develop teachers with a clear teaching identity, who are able to reflect upon their mission as educators, inquire and reflect upon their own practices, draw upon theories and research to design innovative pedagogies, translate these into practice, and improve the learning outcomes of their students. More specifically, the PPI course aims to develop student teachers who are able to:

1. Formulate and articulate their own teaching philosophy
2. Share their conceptions of teaching and learning
3. Integrate and aggregate their learning across the different courses and practicum
4. Articulate the connection between theory and practice
5. Articulate their teaching and learning using their personal digital portfolio; and
6. Understand the importance of inquiry and reflective practice.

The course covers topics like: Understanding the “why”, “what”, and “how” of PPI, reflecting upon and crafting one’s teaching philosophy; understanding and applying the Reflective Practice Model to their own practice; understanding and engaging in the process of Teacher Inquiry and correspondingly using data, theories and research in this process of inquiry. Three main themes run through the PPI course: reflection, inquiry and identity.

Reflecting on one’s own perceptions, beliefs, experiences and practices is a central activity for teachers (Sellars, 2012). Through engaging in the process of reflection, student teachers gain insights into their assumptions and are challenged to refine their thinking about matters pertaining to teaching and learning (Calandra, Gurvitch, & Lund, 2008; Schön, 1987). As student teachers engage in reflection, they can look back on events, evaluate, and alter teaching practices in light of new learning experiences, theory and research. This improves their professional practice and deepens their knowledge of selves (Sellars, 2012; Valli, 1997). Unreflective teachers on the other hand, are merely skilled technicians who are limited in their ability to make good decisions or alter their actions (Valli, 1997). In the PPI course, the Reflective Practice Model provides a systematic framework to guide student teachers through the process of reflecting in, on, and for action (Langer, Colton & Goff, 2003; York-Barr, Sommers, Ghere & Montie, 2006) so that they can gain deeper insights into ways for enhancing their own practice.

But beyond reflection which can be invisible, ad hoc and unsystematic, student teachers are encouraged to engage in a systematic process of reflection that is based on evidence. Using the Professional Inquiry Model, student teachers learn both *from* and *for* teaching. They are taught to engage in an intentional, visible and continuous cycle of data-driven, evidence-based inquiry, action, improvement, positive change and reform (Dana & Yendol-Hoppey, 2008; Liu et al., 2017). If learning to teach is fundamentally inquiry-based in nature, then learning needs to involve a continuous process of systematic refinement (Cochran-Smith & Lytle, 1993; Dunne, 1993).

A teacher’s identity is a personal construct that indicates how one sees oneself as a teacher and how one feels as a teacher (Coldron & Smith, 1999; Gee, 2001; Mayer, 1999). Teacher identity is a dynamic construct and is understood to be in a continual flux and construction (Mayer, 1999;

Walkington, 2005). An awareness of one's personhood during initial teacher preparation provides an understanding of current self and practices. This forms the foundation for areas of growth and professional development (Krzywacki, 2009; Walkington, 2005).

The Digital Portfolio

Complementing the PPI course is the NIE Digital Portfolio which students begin to construct as part of the course. The digital portfolio is a platform which allows student teachers to build a conceptual map of their learning and teaching at NIE and chart their growth and development. It is used as a tool to facilitate the articulation of their teaching beliefs and philosophy, share their conception of what teaching and learning entails, and make visible their inquiry into their own practice. It serves as a cognitive framework that allows the student teachers to form connections between the various courses undertaken at NIE. This process of forming connections will serve to synthesise and aggregate their learning and strengthen the theory-practice connection.

The digital portfolio at NIE is defined as “an electronic collection of authentic and diverse evidence of a student teacher's learning and achievements over time, on which he/she has reflected and designed for personal development, as well as for presentation to audiences for specific purposes.” It is referred to as the “Learning and Teaching Portfolio” to highlight the continuum in its purpose to chart the development of a student teacher at NIE, his/her induction as a beginning teacher, and his/her eventual professional development as a skillful (or trained) teacher (Liu et al., 2017).

The digital portfolio allows student teachers to curate artefacts that reflect their teacher personhood and demonstrate the range of teaching competencies they acquired. The digital portfolio is a tool for reflection on their philosophy of teaching as well as student teachers' attainment of standards and competencies. In the processes of reflection and inquiry, the digital portfolio acts as a tool that allows student teachers to document inquiry processes and generate evidence that the student teachers are becoming thoughtful and reflective teaching professionals (Shepherd & Hannafin, 2011; Smits et al., 2005).

Through the PPI course and the digital portfolio, student teachers articulate their teaching philosophy and engage in a process of self-authorship as they crystallize their teacher identity. At the same time, student teachers develop the professional stance of reflection and inquiry into their professional practice. They raise issues about their teaching and learning, use relevant literature, data and experience to inform and transform their teaching practices. Pivotal to this inquiry process is that inquiring educators continue to share their findings, implementations and experiences and elicit feedback to further refine their practices (Chua, Lee & Liu, 2018). This fosters a culture of inquiry among student teachers who are empowered to take ownership of their learning and development (Weshah, 2013).

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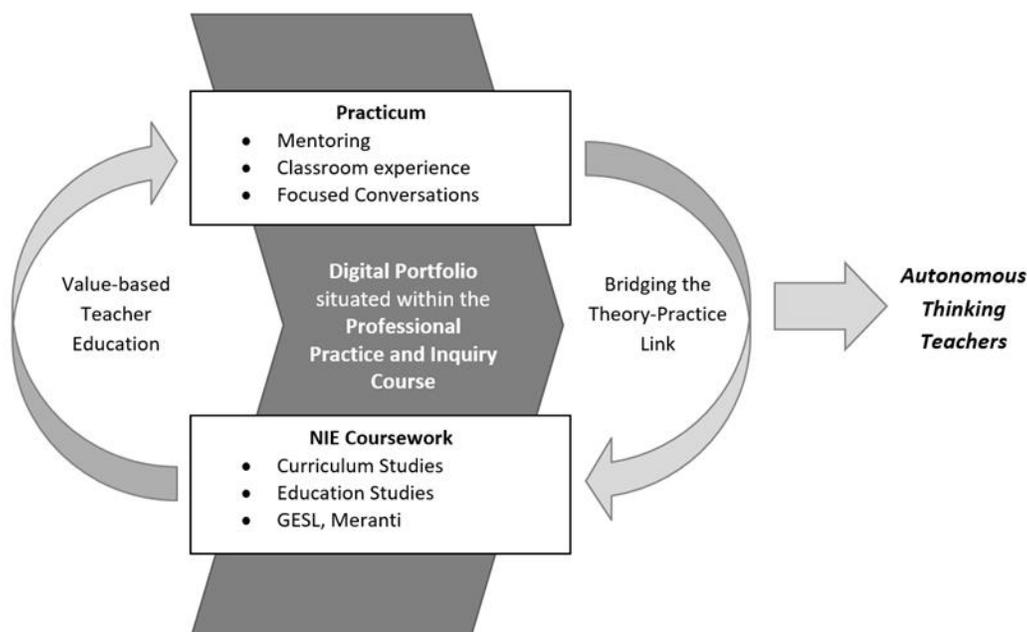


Figure 2. Conceptual Framework of the PPI course (adapted from Liu et al., 2017)

From the start of the PPI course, student teachers are asked to reflect on topics such as their teaching beliefs, their conception of teaching and learning and their role as educators. During the PPI course, student teachers are taught how to craft their teaching philosophy using the digital portfolio, one that will guide the formation of their future perceptions and beliefs for the different facets of teaching. The use of the digital portfolio further supports student teachers' growth and ability for self-reflection, providing a context for ongoing discussions about the construction and negotiation of teacher identity (Hallman, 2007). This visibility of thoughts and inquiry process within a community of practice is an essential element in facilitating student teachers' crystallisation of their teacher identity and inquiry into their professional practice.

Both the PPI course and digital portfolio form part of the teaching practicum. Student teachers are tasked to articulate their teaching philosophies, share learning and teaching experiences, share how they inquired into their teaching during practicum with the use of artefacts and the portfolios. The goal is to develop autonomous thinking teachers through a professional culture of reflection, inquiry, learning and sharing. Combining both theory and practice is an important aspect of teachers' professional development (Yoon, Duncan, Lee, Scarloss & Shapley, 2007). The theory that student teachers learn through courses helps them to "learn for practice" and the practicum experience helps them "learn from practice" (Darling-Hammond, 2006). The practice makes up the "how" while the theory forms the "what" and "why" supporting the "how". This helps teachers cope with the complex challenges in the classroom and be more effective in implementing changes (Timperley, 2008; Yoon et al., 2007).

Planned and structured reflections from the NIE courses facilitate student teachers' understanding and application of the body of theoretical knowledge from the courses and helps them connect their learning in NIE across the various courses by building their own conceptual map of teaching

and learning with the help of the digital portfolio as they prepare for their practice in schools. During their practicum stint, student teachers inquire into their classroom practices and develop their teaching competencies through 3 planned Focused Conversations spread out through their ten weeks of their practicum experience. Throughout this period of time, mentorship by the teacher mentors in school and the NIE faculty supervisor for practicum play a vital role in helping student teachers crystallise their teacher identity and develop into reflective practitioners who are able to think about their own learning and learn about their own teaching. Throughout this journey, student teachers' thought and learning process is made visible to themselves, their peers, school personnel and NIE faculty via the digital portfolio. The development of the disposition for reflective practice and teacher inquiry is urgent and crucial at the start of their preservice teacher preparation programme (Saad & BouJaoude, 2012). And in the spirit of personal and professional growth, it was a deliberate decision that these portfolios were not assessed.

In addition to the focused conversations which allow the student teachers to articulate, share and reflect on their teaching philosophy and practices, local and global platforms and opportunities have been provided such as the International Practicum Summit organised in 2019 and NIE Learning Forums (2012, 2015, 2017), for student teachers to “become involved in a culture of learning, collaboration, sharing and discussion as they engage in co-inquiry, and co-construction of knowledge and identity at the beginning of the professional education (Chua et al., 2018, p. 917). Selected student teachers will share with their peers, course tutors, practicum supervisors, local and international researchers and educators their learning experiences, reflection and professional growth. Student teachers are also empowered to share the challenges they faced, their learning gleaned from their inquiry, refinements to their pedagogical approaches and their professional growth through a biannual PPI publication. To date, 3 issues were published and 53 student teachers have contributed to the publication.

Discussion

This section provides snapshots of the journeys of 5 English pre-service student teachers extracted from their published reflective pieces in the 3 biannual PPI publications. Although student teachers were invited by their PPI tutors to contribute to these volumes, all pieces which have been published were completely voluntary. The criteria were that they needed to be from all ITP programmes and representative of all subject areas. The 5 reflective pieces discussed in this section were the only contributions for English Language i.e. no reflections by English student teachers were left out. An attempt will be made to show how through their professional sharing, these student teachers have appeared to imbibe the culture of *reflection*, *inquiry* and *identity* – essential ingredients needed to develop into autonomous thinking teachers.

Reflection

The Reflective Practice Model adopted by the PPI course has provided a systematic framework to guide student teachers through the process of reflection and enabled them to gain deeper insights into ways for enhancing their own practice. This is evidenced in W. K. Ow Yong's (2017)

extract. The student teacher from PGDE (Secondary) programme, who is was in training to be an English and Literature, wrote,

“... it is essential to cultivate and demonstrate subject mastery, honed by reflective and analytic thinking. Particularly in the higher-end Secondary 3 Express classes, some students will ask sharp and pertinent questions (e.g. about different kinds of modal verbs or the motivations of different characters in the plays studied), which demands that the teacher is fully able not only to respond to such questions but for the further prompt students to ask deeper questions that will trigger higher order thinking. The skill of responding to complex questions with depth and sophistication is a rare but vital one, and as teachers, we need to cultivate it amongst our students in order for them to become truly mature thinkers.” (p. 24)

Ow Yong’s reflection about the importance of cultivating and demonstrating “subject mastery honed by reflective and analytic thinking” on the part of the teacher is a conclusion he reached having taught students at the “higher-end” of the secondary school spectrum. He postulated that having content knowledge alone may not suffice in developing “mature thinkers” i.e., what is needed by teachers is the skill to be able to respond with “deeper questions” to stimulated higher order thinking among the students. The link that he made between his practice and textbook understanding of the importance of higher ordering thinking through questioning in English and Literature classes is a powerful one. PPI provides the intellectual space for novice teachers like Ow Yong to link theory to practice in their professional journey of self-discovery.

While Ow Yong reflected upon a specific teaching strategy, C. Goh (2015), also an English and Literature student teacher from the PGDE (Secondary) programme, pondered over her role and purpose as a teacher as well as the importance of journaling and thinking. She wrote,

“The motivating factor through this experience came from the moments of deep reflection: when I found myself unable to forget the heavy responsibility upon me ... I found that I needed to remember my reason for teaching, and never lose sight of it. Referring to my e-portfolio and reflective blog entries strengthened my resolve to stay true to myself and my beliefs that I had concretised during my time in NIE ... Indeed, my experiences with journaling online through the e-portfolio and my own personal blog have shown me the benefits of thinking through ideas and concepts carefully and then recording these ideas down for encouragement of other readers in the online community.” (pp. 56-57)

While the PPI course teaches student teachers how to compose their individual teaching philosophies, teachers like Goh often confirm or confront their initial thoughts and convictions about teaching only during their teaching practicum stints. It is evident from the extract where she pronounced that journaling via the digital portfolio has helped her concretised certain ideas about being a teacher and reminded her of the “heavy responsibility” she has undertaken. Like Goh who wrote about the “the benefits of thinking through ideas and concepts carefully”, Ow Yong was even more explicit in his assessment of how the digital portfolio provided him with the platform to learn through reflection and sharing. He wrote:

“The e-portfolio platform was thus instrumental for my learning, not only by providing my supervisors a clearer picture of my progress over the term, but also in allowing me to reflect on my own teaching practice in greater depth.” (p. 22)

Inquiry

An important feature of the PPI course is the process of inquiry where student teachers engage in an intentional, visible and continuous cycle of data-driven, evidence-based inquiry. In doing so, there is the hope that they are better able take action in their teaching, strive for improvement and eventually make positive change to their teaching and profession (Dana & Yendol-Hoppey, 2008; Liu et al., 2017). Essentially, teacher inquiry can be seen as a systematic, intentional study of a teacher’s own professional practice (Cochran-Smith & Lytle, 1993). Student teachers are thus encouraged to develop a disposition towards inquiry as they see it as part of their daily work as teachers. T. Yong’s (2017) reflections to a large extent embodies this disposition:

“I hope to have reinforced my point that an attitude of inquiry is truly an important disposition to have in teaching. As illustrated in my own journey, I have consciously attempted to look ‘inwards’ and ‘outwards’. Rather than just going through the momentum of day-to-day experience, looking inwards means that I am constantly spurred to reflect on my teaching experience, asking myself questions after each lesson I have conducted, gathering appropriate data to give me insight on questions which guide my thinking, and paying attention to the challenges of my craft in order to work on areas of improvement. As I begin to make inquiry a habit I am a better educator because I have begun to explore questions about my practice in a systematic way.”(p. 56)

Yong, a PGDE (Sec) English and Geography student teacher, captured the essence of teacher inquiry aptly in ruminating that inquiry is a “conscious” endeavour and that it really is part of a teacher’s daily work i.e., “asking myself questions after each lesson I have conducted”. She also captured effectively the “what” and the “how” of professional inquiry which entails a virtuous cycle of reflection, posing questions, data collection, analysis, making changes and sharing. The spirit of inquiry is also evident in another piece by D. Chng (2019), a BA (Education) (Primary) student teacher:

“I engaged in many sessions of personal reflection and mini research projects to experiment with different strategies and resources. This enabled me to critically review my approaches and as lesson plans and make necessary changes to them ... I feel that these many forms of action research and data collection are extremely important for teachers. Although it may seem tedious and unnecessary, it informs us about the success of our teaching strategies, approaches and instruction.”

That inquiry informs practice –succinctly articulated by Chng – is a recurring theme in many of the reflective pieces. Many have stated that it was because of the evidence that they collected that prompted them to change some aspects of their practice. Case in point is Ow Yong’s (2017) account of his attempts at teaching text editing:

“The accuracy of data was particularly crucial, considering that my teaching practice varied, depending on what the data presented. For example, the results from the students’ first few editing texts alerted me to their weaknesses in grammar and a significant variation in language standards between members of the class. Accordingly, in order to maintain their engagement with the material, I adapted my grammar lessons to suit their learning styles better by targeting only key areas that they were especially weak in.” (p. 22)

Considering that Ow Yong was still a student teacher when he articulated this is testament to his maturity of thought. His thoughts are also revealing of a developing set of dispositions showing a willingness to change and adapt to the needs of his environment. This is evidenced when he wrote, “considering that my teaching practice varied, depending on what the data presented”. Ow Yong has demonstrated autonomy in making decisions for his learners and, as alluded to in our epigraph at the start of this article, he went “beyond ‘covering the curriculum’ to actually enable learning for students” (Bransford et al, 2005) with different learning styles.

Identity

Autonomous thinking teachers are aware of their teacher identity. The teaching practicum supported by the PPI initiative provides NIE student teachers with a platform to reflect on their selves as well as their practices. This deep understanding of one’s teacher personhood is essential and forms the foundation for professional growth (Krzywacki, 2009; Walkington, 2005). Many of the reflective pieces by the student teachers reveal strong beliefs about who they are and what they want to be as teachers.

Suhaimi (2019) for example, who was training to be an English and Math teacher in the PGDE (Secondary) programme, wrote about his identity: “I see myself as a teacher of students rather than a teacher of subjects ... This means that I care about my students’ holistic development and not only their performance in the subjects I teach.” (p. 24). Chng (2019), on the other hand, uses the analogy of the farmer to describe her role as a teacher-cum-nurturer. She sees herself as farmer and her learners as “little seeds that need the right conditions in order to germinate”. And as a farmer, the teacher needs “to understand the type of plant he or she is dealing with then is aware of the differing conditions each plant requires”. She argues that teachers like farmers “are also responsible for the quality of the yield” (p. 131). While Suhaimi and Chng have different personal constructs of their teacher identities – i.e., how they see themselves as teachers and how they feel as teachers (Coldron & Smith, 1999; Gee, 2001; Mayer, 1999) – they were both clear in linking these identities to their practices and how they see or connect with their learners.

Goh (2015) quite insightfully wrote that “[t]he teacher cannot think for the students, nor can s/he impose their thought[s] on them. Real thinking, thinking that is concerned about reality, only takes place in communication and dialogue ... Clearly, the existential flavours the Socratic method of questioning or what we know here as critical thinking, a practice I believe should happen in every one of my classes.” (pp. 54-55). Goh is effective in linking her belief – that learners should be allowed to think for themselves without teachers imposing their views – with her preferred choice of pedagogy – i.e., the Socratic method of questioning – is evidence that even though she is a

novice in the profession, she is quite acutely aware of her teacher personhood and how it comes to bear on her choice of practice.

Conclusion

This paper has described in considerable detail, changes made to Singapore's ITP, with special attention placed on its thinking teacher model (NIE, 2009). It also explicated the Professional Practice and Inquiry (PPI) initiative which is both a framework and a platform to curate student teachers understandings across all their courses, reflect deeply about teaching and learning and highlight their best work. This paper also attempted to show, through the use of pre-service student teachers' published reflective pieces, how PPI has, in part, shaped the thinking of 5 young English teachers. Evidenced, particularly in Goh's (2015), Yong's (2017) and Suhaimi's (2019) pieces, are the awareness of their environments and the actions they took to respect them. This perhaps is the 'ecological' approach to agency that Priestley et al (2013) talked about – where teacher agents will “always act by means of their environment rather than simply in their environment” (p. 3). It is with hope that through time and with experience these 5 teachers will develop into autonomous thinking teachers.

What would be useful to substantiate the claims made in this paper would be empirical data about PPI and its effects in developing English teacher agency. A few ideas: One, a more fine-grained analysis of the actual portfolios of English student teachers with a larger sample size. Two, a longitudinal study of the impact of PPI i.e., pre and post programme surveys and interviews followed by case studies of a group of English teachers for the next 5 years of their service. Three, a comparative study of English pre-service teachers and what agency might look like for them compared to their counterparts in other disciplines.

The Autonomous Thinking Teacher Model (NIE, 2009) – our model of developing teacher agency – continues to be a work-in-progress. There is still much to learn and improve the ways in which we understand agency – especially how it develops through the years and in the different subject disciplines. However, we know for certain that the 21st century requires teachers who possess a set of skills and dispositions that are different from their predecessors. The strong ownership of growth in professional practice, passion to learn and respect for their environments are what will set them apart. As such, it is apt to end this article with a quote from a student teacher who opined about the role of teaching:

“Teaching ... does not involve the mere transmission of ideas to passive auditors or the regurgitation of mundane propositions. Rather, it is the kindling of a passion, driven by a conviction that effective teaching depends on close engagement with students' lived experience.” (Ow Yong, 2017, p. 17)

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