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Using a Skills Development Course to Foster Teacher Professional Growth

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In many countries concerns have been raised about the proficiency levels of teachers of English and various proposals have been made to address them. This study explores one possible solution to this problem by integrating language skills development with an awareness of pedagogical approaches. The participants in this study, pre-service teachers who were preparing to teach in Singapore primary schools, attended a short intensive course that helped develop and support their own English language skills while modelling approaches they would be expected to use in their own classrooms. Data were collected using a pre-course survey, reflective tasks during and after the course, and a post-course task based on practical school experience. The findings demonstrate how the participants became more aware of their own language skills and noted improvements. At the same time experiencing and reflecting on the pedagogical approaches used in the course helped shape their perceptions and beliefs, and had potential and real impacts on their subsequent teaching. Clarke and Hollingsworth's (2002) Interconnected Model of Teacher Professional Growth (IMTPG) was used to analyze the data and highlighted the individuality of the process of teacher professional growth, while at the same time revealing some common patterns.

Keywords: process writing, oral communication, technology, reflection, IMTPG, teacher professional growth.

Introduction

The issue of language teachers' own language proficiency has been voiced in a number of contexts. Although Choi and Lee (2007) found that generally the English language skills of those in Asia entering pre-service training for primary and secondary schools were evaluated in some way, concerns about the English language proficiency of teachers continue to be voiced at events such as the 2013 Forum on English for ASEAN Integration (The Brunei Times, 2013). These concerns have resulted in proposals requiring all

English language teachers in Vietnam (Baker, 2012) and Thailand (Mala, 2016) to take proficiency tests. It is opportune therefore to consider how best to help teachers develop their own language skills. Integrating learning about and experiencing target teaching approaches while attending a skills development course designed to improve personal language proficiency, as was done in this study, would seem an efficient way of addressing this issue.

The situation in Singapore is not the same as in countries in which English is largely taught as a foreign language. Singapore has a multi-ethnic and multilingual resident population comprised of 74.3 percent Chinese, 13.3 percent Malays, 9.1 percent Indians, and 3.2 percent people from other ethnic groups (Singapore Department of Statistics, 2015), and English, Mandarin Chinese, Malay and Tamil are all official languages. However, since 1987, all state school instruction has been conducted in English (except for Mother Tongue lessons in the language reflecting the ethnicity of the child's father). As many children still come to school from homes where a standard variety of English is not predominantly used, teachers may be their main source of exposure to this target variety and therefore need to be good models of standard English. Applicants to the Ministry of Education (MOE) are required to demonstrate English language proficiency levels through qualifications such as a minimum of B3 in the Singapore-Cambridge General Certificate of Education English Language O level examination (Ministry of Education Singapore, 2016), an example of the controls Choi and Lee (2007) discuss. Yet, as in other countries, concerns about language proficiency remain.

In response to these concerns, a teacher training institute in Singapore introduced a suite of courses aimed at enhancing participants' English language subject content knowledge and personal language skills. This suite of courses is taken by pre-service teachers in diploma and degree courses who will later teach English in state primary schools. The study reported in this article was conducted with participants on one of the courses designed to enhance the participants' language skills, and explores their professional growth during the course.

Context: English Language Skills Development Course

The course for these pre-service teachers focused on developing their writing and speaking skills using a process approach to learning, which was delivered in a blended mode over a period of two weeks. The participants spent alternate days in class, during which subsets of writing and speaking skills were introduced and practiced, and other days online, during which they wrote their base narrative, recorded it as a podcast, and then crafted a digital story with visuals and audio to support their narratives. At each stage, their drafts were posted online and critiqued by their peers and tutors. Fig.1 provides an overview of the main stages in the process.

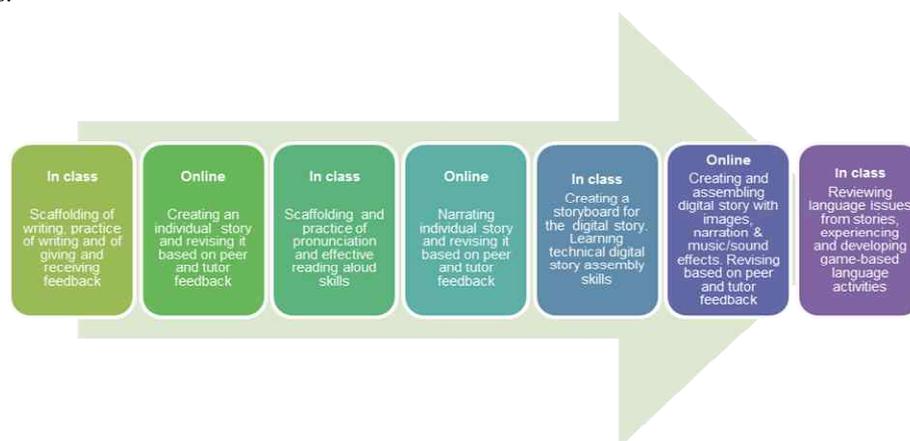


Figure 1. Main phases of the course.

The above figure illustrates the integration of face-to-face and online learning in the course. On the first day, for example, the participants were in class. Here they discussed what makes a good story and were then asked to brainstorm ideas and draft stories in groups of about four people using sets of prompts similar to those used in the national examinations their future students would take. After this, the tutor introduced some principles for providing feedback, and the participants were paired with another group to share their stories and critique each other's work. Based on this feedback, the groups developed a second version of their stories which they then presented to the class for further comments. The next day the students worked online. They wrote individual stories and posted their drafts on the course wiki. Only the other members of their group and the tutor could view these drafts. After receiving feedback from their peers and their tutor, these initial drafts were revised in preparation for the next stage during which their narration was prepared. This basic procedure was followed throughout the course and culminated in a day during which the participants shared the final published versions of their digital stories with the whole group. Alongside the development of the digital stories, slots were set aside for focused language practice in areas that emerged as problematic based on draft texts or narration, for example different ways of using tense and aspect in relation to past time. Further details about the development and delivery of this course are elaborated in Hanington, Pillai, and Kwah (2013).

Shortly after the course, the participants spent five weeks in school doing the first of the two practicum phases in their training. During this first practicum phase, they largely observed experienced teachers, and assisted in teaching parts of lessons. As part of the course they had just attended, they were required to write a reflection on the classes they observed or helped teach. This reflection linked their experience in school with their learning on the course.

Teacher Professional Growth

There have been a number of models of professional growth, for example Kolb's (1984) cycle of experiential learning or similar models by others such as Guskey (1986) and Huberman (1995). However, the processes an individual undergoes when internalizing new ideas is likely to be far more complex than the more unilateral process that tends to be represented by such models. First introduced in 1994, Clarke and Hollingsworth's (2002) Interconnected Model of Teacher Professional Growth (IMTPG), shown in Figure 2, is based on elements of the earlier model by Guskey (1986), but it accommodates multiple interactions between four domains (the personal domain, the external domain, the domain of practice and the domain of consequence) within the so-called change environment (i.e., the wider context within which change takes place). This multiplicity of interaction would seem to better reflect the complex ways in which people develop professionally. Furthermore, embedded in the model is a theory of learning expressed in the idea of a "key shift in agency" (Clarke & Hollingsworth, 2002, p. 948) with teachers being seen as 'active learners'. This view of teachers complements the way participants were viewed in this study. A number of educational researchers have used and critiqued the IMTPG (Coenders, 2010; Eilks & Markic, 2011; Wang, B. Kim, Wen, & M. Kim, 2014), but in applying it to this study, Justi and van Driel's (2006) and Hung and Yeh's (2013) work proved very helpful, especially in terms of their criteria for coding and for establishing links within the model. Justi and van Driel's work in particular details their application of the model and confirmed its effectiveness as an analytical, predictive and interrogative tool. In this study it is the analytical function that is primarily employed.

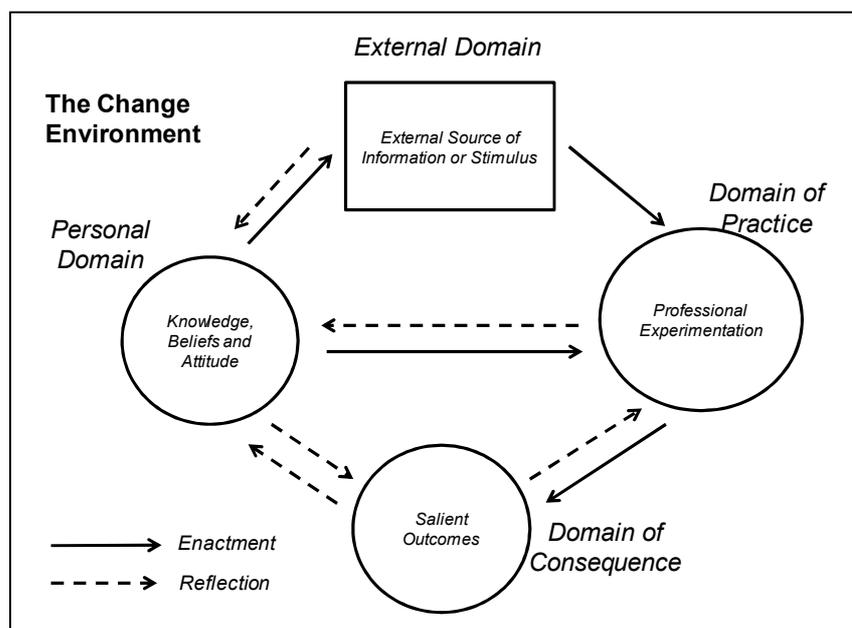


Figure 2. Interconnected model of teacher professional growth (Clarke and Hollingsworth, 2002, p. 951).

A key issue in teacher development which relates to the view of teachers as active agents in their own learning is the need to view professional development as building on the prior knowledge, beliefs and experience of practitioners (Eilks & Markic, 2011; Hollingsworth, 1989; Ng, Nicholas, & Williams, 2010). Those training to be teachers bring to their training a wealth of prior experience and beliefs about teaching and learning accumulated during their time as students or in previous work environments and use this to make sense of new experiences. Their prior experience can, however, be something of a double-edged sword, because such beliefs can be deeply entrenched and not necessarily reflective of teaching approaches advocated by the training institution.

In addition to experience prior to pre-service training, the participants in this study had already attended a number of methodology courses, including one on the teaching of reading and writing, which introduced process approaches, and one on academic and professional writing, into which some elements of these approaches were integrated. The beliefs and attitudes developed as a result of this range of experiences were therefore seen as an important starting point in the participants' further development, both as language learners and as teachers.

The study sought to answer the following research questions:

- What impact did the course have on the proficiency of the participants?
- How did experiencing and reflecting on target methodological approaches on the course help shape the perceptions and beliefs of pre-service teachers preparing to teaching in Singapore primary schools?
- What were the potential and real impacts this course had on their subsequent teaching?

Methodology

This qualitative study was conducted with participants on the short intensive course described earlier which specifically aims to develop the participants' own spoken and written communication skills through the creation and publication of a digital story.

Participants

The data were collected from an intact cohort of pre-service teachers. All the data were generated as an integral part of the course and consisted of:

- a pre-course reflective task,
- reflections on learning after each of the three main course stages (writing the base narrative, recording the narrative, and compiling the digital story)
- a reflection at the end of the course that asked participants to highlight the main items that they hoped to apply in their subsequent teaching.
- a task during the practicum that took place shortly after the course. This task was based on observations and reflection because these pre-service teachers did not necessarily teach classes during this first practicum phase.
(Please refer to Appendix A for the questions guiding each item.)

After the course the participants were told about the research project and asked permission to use their material. Of the 66 course participants, 61 gave their consent.

To allow for a more detailed exploration of individual experiences using the IMTPG, ten people were then purposefully selected based on comments they made in the pre-course task. They were chosen because of their different starting points in terms of attitudes toward and knowledge of process approaches to learning and because was thought that such individuals could show very different growth pathways. Table 1 below categorizes the ten subjects selected according to their pre-course stand on process approaches. The names used throughout this text are pseudonyms.

TABLE 1
Subjects by Pre-course Stand on Process Approaches

Stance	Subjects (pseudonyms)
Marked Support	Pi Ying, Sheila, Siva
Strongly Expressed Reservations	Celine, Doreen, Jin Hong
Love/Hate Relationship	Candice, Zhi Shing
No/Little Experience	Charles, Shi Yan

The individuals were selected as follows:

- Three people (Pi Ying, Sheila and Siva) were selected based on their support for one or more process approaches to learning: "our lives revolve around the process approach and hence, it is highly important" (Sheila).
- Three (Celine, Doreen and Jin Hong) were selected based on the strong reservations or noticeable lack of support they expressed. Given that process writing is an approach advocated in Singapore and these pre-service teachers had already had a methodology course on the topic, the general

inclination of the respondents towards process writing was positive. Nevertheless, some target subjects with strongly expressed reservations were identified. Celine, for example, started her pre-course survey by stating she “would like to believe” that process writing did what it claimed, but in reality found it tedious and restrictive.

- Two (Candice and Zhi Shing) described their relationship with process writing as a love/hate one — a comment that seemed sufficiently interesting to warrant tracking their development,
- The final two (Charles and Shi Yan) were selected because, despite having completed their education in Singapore and having done the same courses as the others, they claimed they had had no or very little experience of process approaches.

Using the Integrated Model of Teacher Professional Growth

The IMTPG (Fig. 2) was used to analyze the data. The model presents four interconnected domains within a change environment. The domains are connected by unbroken lines that represent enactment and broken lines that represent reflection. In this study, the *change environment* in the model encompasses both the training institution and the school where the practicum was conducted. The four domains are defined as follows:

- Personal domain: This comprises the experiences beliefs, knowledge and attitudes the participants bring to the course. It includes both school learning experiences and any previous exposure to approaches. This baseline was established through a pre-course survey.
- External Domain: This comprises inputs from the target course through exposure to and discussion of approaches and activities.
- Domain of practice: Because the subjects are pre-service teachers and their first practicum period of five weeks that followed the course did not always involve them in direct teaching, the domain of practice comprises the application of ideas by the participants either themselves or comments on the classroom practice of those they observed during this period.
- Domain of consequence: Clarke and Hollingsworth (2002) describe ‘salient outcomes’ in the domain of consequence as student related outcomes or changes in classroom practices that are “firmly tied to the teacher’s existing value system and the inferences the teacher draws from (them)” (p. 953). Observations specific to the impact on learners, whether as the result of the implementation of an idea or the proposed implementation are considered to fall in this domain.

The model helps researchers to identify links between different domains and to explore the nature of these links. In particular, researchers look for ‘change sequences’ and ‘growth networks’ that emerge from the data. The distinction between change sequences and growth networks is an important one, and Justi and van Driel’s (2006) re-definition of these concepts as depending on the complexity of relationships within the model was adopted. Justi and van Driel define ‘change sequence’ as a superficial change “characterized by the establishment of one or two relationships between different domains for a given aspect of teachers’ knowledge” (p. 443), while a ‘growth network’ indicated more complex changes and “consisted of more than two relationships between different domains” (p. 444). An additional requirement for this study was that an idea or theme re-emerged during reflection on the practicum before a growth network could be ascertained. One reason for this caveat was because a question at the end of the course asked participants directly to identify three things they hoped to use in teaching. While this could be seen as anticipation of application in the domain of practice, it was felt that further substantiation during the school-based practicum period was

required as confirmation. Those items that were not referred to again during reflection on practicum were categorized as change sequences.

The criteria used for establishing links in this study were slightly modified from the criteria established by Justi and van Driel (2006) and adapted by Hung and Yeh (2013). These modifications were necessary to reflect the situation of the respondents in the current study.

TABLE 2
Establishing Links within the IMTPG Framework

Relationship	Criteria for establishment
From PD to ED (enactment)	When a specific aspect of teachers' previous knowledge of any aspect of process writing or process approaches influenced what they did or said in any of the reflections.
From ED to PD (reflection)	When something that was done or discussed in during the course that modified teachers' initial knowledge, beliefs or perceptions
From ED to DP (enactment)	When something that was done or discussed during the course influenced something they planned to do in their teaching their teaching (this could be planning/in relation to teaching observation or in their own teaching.)
From PD to DP (enactment)	When a specific aspect of teachers' knowledge influenced something that occurred in their teaching during practicum (in class/preparation/ in relation to students)
From DP to PD (reflection)	When something that teachers did in their teaching or observed in the teaching of others during practicum modified their understanding of process approaches.
From DP to DC (reflection)	When something that teachers or students did in class related to process approaches caused specific outcomes.
From DC to DP (enactment)	When a specific outcome observed made teachers state how they would modify the associated teaching approach in the future.
From DC to PD (reflection)	When teachers reflected on a specific outcome, thus changing a specific aspect of their previous knowledge.
From PD to DC (reflection)	When a specific aspect of teachers' knowledge helped them reflect on/analyze a specific outcome of their teaching or observed teaching.

PD = personal domain, ED =external domain, DP = domain of practice, DC = domain of consequence

Once these criteria for links had been established, the data from the target participants were coded by looking for meaningful units, at the sentence level or longer, that reflected the criteria. After coding, each subject's change sequences and growth networks were mapped. The first round of coding and mapping for all subjects was done by the lead author for this article. Her decisions were then verified by two colleagues, one of whom is the co-author. Where there were differences in coding these were discussed to reach an agreement.

Sample growth networks, representing more complex and hopefully more deeply internalized professional development were then explored in greater detail particularly in relation to the course focus areas: written communication and oral communication. One further notable area of development that emerged was the integration of technology which was also explored.

Findings

The mapping of change networks and growth sequences demonstrated that all ten individuals had changed and grown as a result of the course, regardless of the views they expressed in the pre-course survey. The three with a very positive attitude to process writing and the two who expressed a love/hate orientation all had two or three change sequences and a similar number of growth networks. Data for the five people in the other two

categories (those with strong reservations and those who felt that they had no experience of process writing) indicated one or two change sequences and one or two growth networks. The growth networks identified were as individual as the subjects in their detail, though across the whole group some patterns emerged.

Sometimes a number of change sequences converged and contributed to a single growth network and were therefore counted as part of that network. Change sequences that did not link into a network tended to occur during the course and linked the external domain (of the course) to the personal domain. Some showed potential for application in the domain of practice, but they were not referred to again in the reflection on practicum. Many change sequences, both those that contributed to growth networks and those where immediate application was not observed, related to the subject's own language development and awareness.

In terms of writing, changes were generally expressed as being better able to achieve communication goals such as conveying emotion accurately or engaging the audience. For most this meant extending vocabulary or making careful choices about language, content or organization. Only two people (Celine and Jin Hong), both of whom had initial reservations about process writing, talked specifically about improving language structures such as tenses. As most pre-service teachers in Singapore are proficient English language users, a focus on higher order communication skills is understandable. When talking about oral skills, the subjects focused on different aspects of the phonological system and many talked about learning about specific aspects of pronunciation or sentence stress with which they had problems. They also talked about the impact on the audience of pace, tone and intonation. It is likely that this course was the participants' first exposure to learning about specific technical aspects of phonology, and all of them reflected on this in relation to their own performance.

As noted above, change sequences were often the starting points for growth networks. Significant networks are explored according to their focus in the following sub-sections. Figures 3 - 6 are the diagrammatic representations of these individual growth networks mapped on the IMTPG. The numbers given in the individual accounts reflect the links observed in the model.

Written Communication Skills

A growth network evident in the data for all the subjects related to process writing approaches. That this was a focus of the comments is not surprising given the nature of the course and the occurrence of this term in the various survey questions. Nevertheless, thoughtful reflection on school practice in relation to process writing was characteristic of responses. Two important threads were noted in these networks: firstly, the development of the subjects' own skills and awareness as a writer, and secondly, the appreciation that, having experienced process writing themselves, they had a much better understanding of what was involved and why it was advocated. Such comments underscore the benefits of experiential learning during teacher professional development.

Three networks reflecting the development of participants as writers and teachers of writing are explored in detail.

Sheila's network

The first network is that of Sheila, who strongly endorsed process approaches.

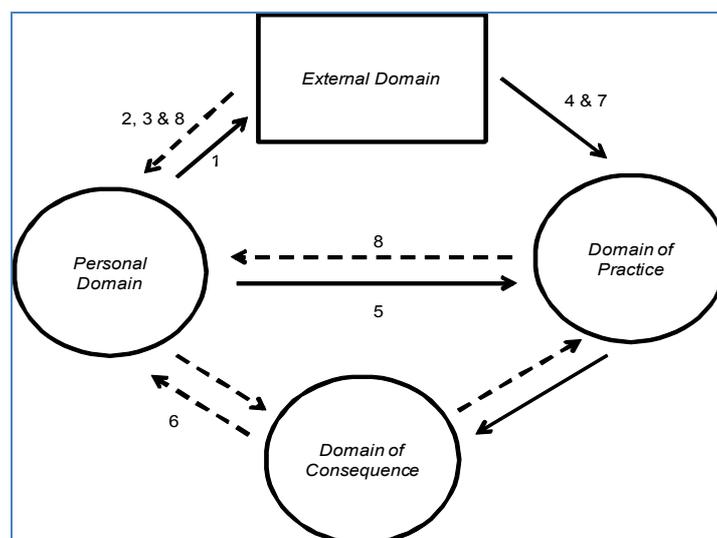


Figure 3. Sheila's network.

- (1) Sheila brought to the course a personal belief that “our lives revolve around the process approach and hence it is very important” and talked about its application in all spheres of life. From her school days and previous experience in the teacher training institution she identified four stages: planning, doing, checking and acting, and illustrated these using a project she had undertaken with peers.
- (2) When talking about her own writing development on the course, she highlighted the editing phase and how she changed her work to allow for better plot development and to increase coherence and cohesiveness.
- (3) At the end of the course, she stated that the approach that had allowed her to develop her own story was one she could use as a teacher because “it is excellent as a form of scaffolding to help my pupils think through their work and check thoroughly.”
- (4) During the practicum, Sheila was tasked with starting a writing package and described how she used a video to introduce the idea of plot structure and examples to help students notice typical plot structures, brainstorm ideas, gather relevant language items and map their stories. In this description, elements of approaches used on the course are evident, though
- (5) additions were made, for example the idea of using other texts as a source of useful language.
- (6) Sheila also talked about her students drafting and then revising their work based on her feedback, and noted that getting immediate teacher feedback was an important way they could learn to check their language and grammar — re-iteration of views she had expressed at the end of the course.
- (7) She stated in her reflection that she incorporated ideas from the course at all stages of her lesson, and that
- (8) after the practicum, despite still lacking some understanding, she felt that “as I managed to apply the process approach (to writing), I felt that I have improved in my understanding of the area.”

Overall Sheila's network reflected how both the input from the course and the experience of application combined in her professional growth.

Charles' network

Charles was almost the opposite of Sheila, in that prior to the course he claimed not to be sure what process writing was.

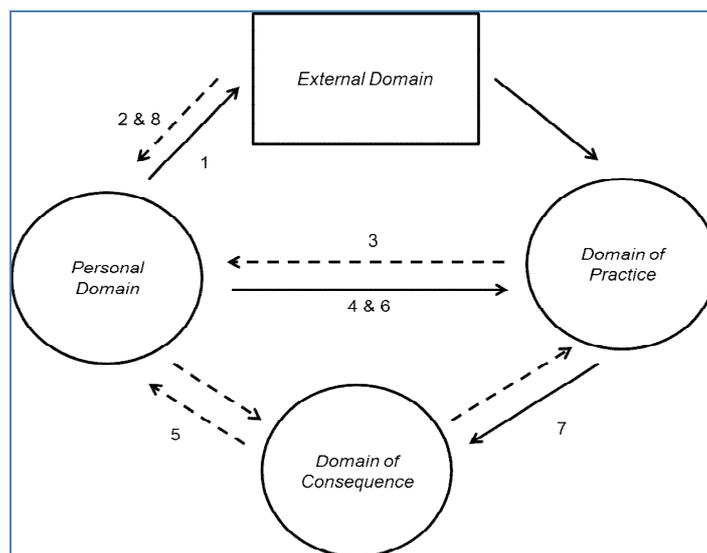


Figure 4. Charles' network.

- (1) He brought to the course the understanding that it was “probably approaching writing through various set steps.”
- (2) Reflecting on his own writing during the intensive phase of the course, he talked about plot and character development and suggested developing a checklist “that shows me what I ought to include in a story so that the finished product will successfully appeal to the readers.” It seemed that he focused particularly on planning prior to writing, and this focus was also evident in his reflection after practicum where he chose to describe a lesson he observed that focused on pre-writing stages for a composition.
- (3) Based on this lesson observation he suggested ways he could stretch higher ability students more during pre-writing stages and
- (4) help them develop and elaborate content making it “more vivid and enthralling”; essentially aspects of planning that would help the product appeal to readers and which echoed what he had done to support his own writing. As no specific mention of the course was made, this was categorized as a link from the personal domain.
- (5) He also noted that students loved being engaged in brainstorming and ideas generation.
- (6) From this observation, he suggested implications for his own practice as a teacher; “the activities I design must include a great amount of interaction between students to allow opportunities for them to vocalize their ideas and elicit responses from others.”
- (7) He felt both these elements would help students develop their language skills.
- (8) In conclusion, Charles felt he had learned “the extent of each step in the process approach to writing” and the “value of spending more effort and time on each.” From his comments, however, it appears that at this point in his development, his primary focus was on pre-writing steps “that actually make

a story good and exciting.”

Mapping growth networks about process writing revealed that whatever the individual related to most and had found beneficial in terms of their own writing development tended to be what they focused on during the practicum. From the two examples above, Charles can be seen to focus on pre-writing stages, while Sheila chose to comment specifically on revision and editing, both in her own work and her students.

Doreen’s network

The continuation of one thread is also very noticeable in Doreen’s account.

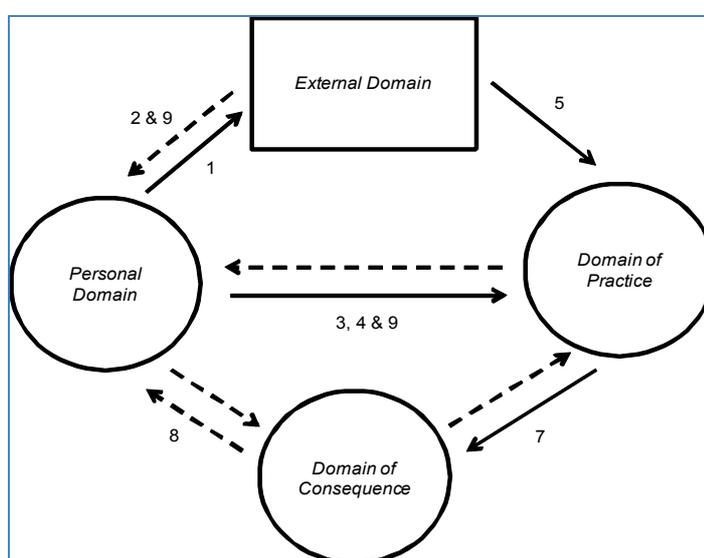


Figure 5. Doreen’s network.

- (1) Doreen started by admitting that, despite or because of, process approaches, she “never did learn to appreciate writing” and attributed this to lack of experience to draw on for content, lack of choice of topic and lack of examples. It is exactly these things that she referred to when tracing her development to someone who “had a little crush on reading and writing.” She discovered that writing a story following a suggested plot development but based on an open topic “didn’t seem as tough as I thought,” although she was aware that she needed help with grammar and sentence structure and hoped for and received help from her peers in this area. She also talked repeatedly about learning from exposure to her peers’ stories.
- (2) In particular for Doreen, it was the production of a digital story using multi-media approaches of her own choice, and the feedback and support of her peers that motivated her and helped change her views.
- (3) Incorporating collaborative learning and motivating activities into class were in turn two of the three things she hoped to apply in school.
- (4) During the practicum, these themes reoccurred, firstly, in suggestions of incorporating more sharing time, as this “helps them to firm up their ideas aloud and at the same time peers are able to provide specific suggestions to improve ideas”;

- (5) and secondly, in approaches in her own teaching, where she said she drew on ideas from the course and showed her students a video of another person's work to interest them and provide them a goal.
- (6) She noted that this "really made students eager to put in their best and keep refining their writing."
- (7) Despite being enthusiastic about the support she got from peers during editing processes, and affirming this in her teaching "student-student and teacher-student conferencing and teacher's written feedback would "benefit students a lot, especially when feedback is encouraging," her school experience tempered this.
- (8) She felt she would not use peer conferencing with lower-ability students, as they would not be able to give accurate feedback, but would focus on teacher feedback with them.
- (9) In her final reflection, Doreen stated that the course had helped her put "the process of writing learned theoretically" into practice and understand the value of aspects like revising that she had previously considered troublesome. It further let her experience "what students need in their learning; different avenues to reading, writing and speaking."

A major feature of the course was experiencing the impact of collaboration and of both giving and receiving peer feedback as well as responding to tutor feedback. In the networks above, both Charles and Sheila talked about collaboration during brainstorming stages, while for Doreen, this was a major component of her growth network.

Comments that working collaboratively and experiencing co-operation, including peer feedback, were beneficial appeared in the data of seven of the ten people selected for this article, despite the fact that none of the reflection questions overtly focused on this. This contrasts with the pre-course survey, where it was not explicitly mentioned. Candice (love/hate), for example, had a main growth network related to planning and a second substantial network that linked from the course into practicum that focused on group work and peer feedback. Her reflections after the practicum indicated how she moved beyond the course in her understanding and application. She talked about pupils' learning from group work about "practical life skills like working collaboratively and also accepting others' ideas or improving on their ideas" and also gave ideas on how she would adapt group work to suit her lower primary students. Others commented on how much peer feedback had helped guide them as to changes needed to their own writing and narration, but also how important the affirmation of their peers had been. In school, they generally saw collaboration as a way to expose the pupils to more ideas and examples, though they expressed reservations about peer editing either because they felt their lower primary pupils would not be able to do this effectively or because of time constraints.

It would have been most disappointing for the researchers, who are also course tutors, had there been no growth networks in terms of process writing approaches. Fortunately, this was not the case. Those who were strongly in favor of such approaches grew in their understanding either of the approach itself and/or of its application, and the other students, whatever their starting points, also seemed to have adopted aspects of the approach. Some changes were quite dramatic while others were more incremental. What Sheila said about having moved some way to a better understanding but still having some way to go, would probably hold true for all — a completely understandable finding given the stage in their program.

Oral Communication Skills

All ten participants showed a change sequence relating to their own performance in terms of oral skills. In many cases, this combined an affirmation of previously existing skills with recognition of areas for improvement and of being models for their students. Three people showed evidence of a growth network in the area of oral skills, with one, Doreen, applying what she had learned in her teaching. She had her students

record their edited work and felt this helped them make further revisions and also gave the teacher samples she could “share with the class so that everyone may learn” (Doreen).

One reason for fewer links to the domain of practice in this area could be the wording of the main practicum reflection question, but it could also be that the subjects tended to focus on their own oral communication skills in line with the idea of being role models, and also that relatively less emphasis is placed on specifically developing these skills in most schools.

Pi Ying’s network

The final network explored in this article, Pi Ying’s network (Figure 6), is quite representative of networks in this area.

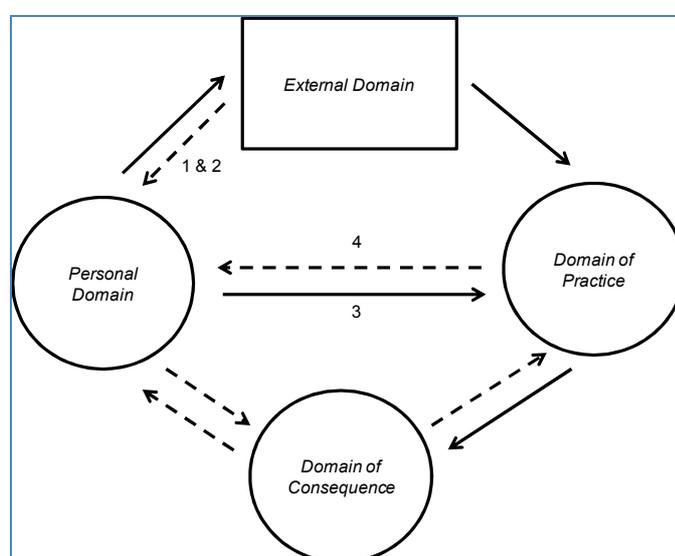


Figure 6. Pi Ying’s network.

- (1) Pi Ying felt that on the course she learned she had an animated voice and could vary intonation and pitch to suit her story. She also realized that she was not always sure of the pronunciation of relatively simple words. “This was a good learning point for me as I had to research the standard pronunciation of these words.” This is an example of how the course helped participants recognize issues with their own language proficiency and give them research tools such as understanding of the International Phonetic Alphabet (IPA) to help them improve.
- (2) Pi Ying also learned to pay more attention to consonant clusters at the ends of words and to the words that should be stressed in order to bring out the meaning of her story. She felt that working on her pronunciation in the course was beneficial for her future teaching career; “good and accurate pronunciation will benefit the students, as they will then be able to model after me.”
- (3) After observing classes in school, she commented that she could bring stories alive with expressive reading and help students develop good oral presentation skills by teaching them about pitch, rhythm, volume and tone.
- (4) However, she had reservations about whether ideas like recording narratives could be done in school because of time constraints.

This network is less complex than those diagrammed earlier; both (1) and (2) link the external domain to the personal and impact understandings, while (3) seems to combine course input (external domain) and changed perceptions to potentially influence the domain of practice. Finally, (4) is a reflection from the domain of practice to the personal domain. What this highlights, however, is that understanding more about the strengths and weaknesses of her own oral skills and being given tools to support their development, impacted what Pi Ying is likely to focus on in school and the approaches she may take.

Technology

Not all growth networks led to changes in real or potential changes in classroom practice. Some subjects talked about technologies they had learned in the course and intended to use in class, but later, from exposure during the practicum, they changed their minds. This too was seen as an important developmental pattern and related in particular to the use of technology.

While the intention of the course was not to teach technical skills but to use them as tools to further learning, many participants chose to mention how learning to make recordings and movies could support their teaching. Shi Yan, for example, commented that digital storytelling aligned with “21st century information skills and ICT learning and teaching.” This was an additional positive impact of the course.

However, a pattern noted in the reflections of six of the subjects was that expectations relating to the use of technology were confounded or modified by school experience. Siva, who had hoped to use applications in his teaching, continued after the practicum to be in favor of using digital storytelling as a way of motivating students and publishing completed work. However, he commented that the many IT applications used in the course “despite being very useful in creating digital stories, [were] not applicable in current Singapore schools” because of student competency, and the availability of time and resources. Zhi Shing also noted that she was happy to have learned skills such as film making and music editing for her personal use, but could no longer see their application in school. This finding is quite significant for the institution and perhaps the schools themselves, given the promotion of ICT as a teaching tool.

Others, while talking about limitations, also showed how they were able to extract the ideas from using digital storytelling and make them accessible without technology. For example, Shi Yan felt she could use drawing or “puppet story telling” with the same motivational impact, while Celine learned how “images can help tell a story.”

Discussion

Using the IMTPG as a tool to analyze the developmental processes of selected subjects helped answer the three research questions.

What Impact Did the Course Have on the Proficiency of the Participants?

Many of these future teachers talked about being models of standard English for their students and being able to correct students’ work and guide them. The aim of the digital storytelling course was to help them achieve the proficiency they needed to feel confident in such roles. The study found change sequences, either as part of growth networks or in isolation, relating to personal language development in the reflections of each person. Their reflections indicated that their awareness of language skills such as being able to express emotion, use correct structures, write in a cohesive manner, and pronounce words in standard English had increased, with each subject identifying particular strengths and weaknesses in their own performance though

the activities and feedback from peers. The reflections also indicated what they would do to address issues, particularly those related to pronunciation, for example being more careful about pronouncing words containing problem sounds or using resources introduced in the course.

On such a short course, it would be unrealistic to expect a measurable change in proficiency. However, the comments in the reflections showed that the participants' ability to identify specific issues with their language and take remedial action had improved. The improvements made to the coherence and cohesiveness of the narrative in Sheila's case, and Pi Ying's improved use of intonation when reading and her increased attention to consonant clusters and to stress in utterances, are evidence of their developing proficiency.

How Did Experiencing and Reflecting on Target Methodological Approaches in the Course Help Shape the Perceptions and Beliefs of Pre-service Teachers Preparing to Teaching in Singapore Primary Schools?

Findings from this study show that their experiences on the course fostered the participants' understanding of target approaches. Regardless of their initial views about process writing, they all developed in their understanding of process approaches to writing in particular, and in ways to support their students' language development. Those who had started with a very positive attitude deepened their understanding, while subjects whose standing was uncertain or ambivalent came to better appreciate many, if not all, aspects of the approach. What each individual took from the course and how it was integrated into the personal domain of beliefs, attitude and knowledge was unique to that individual. It was also clear that the course was only one stage, albeit quite a significant one, in the continuing development of their perceptions and beliefs.

What Were the Potential and Real Impacts This Course Had on These Teachers' Subsequent Teaching?

A great strength of the IMPTG is the way it allowed for a more intimate understanding of the processes individuals engage in during their professional development. Something that emerged clearly from this analysis is the importance of the individuals' experience and personal perceptions in shaping what they take from courses during their pre-service programs and subsequently into the classroom. This was evident in the existence of threads in the growth networks particular to each individual that could often be traced to points raised in the pre-course survey. This finding has distinct implications for teacher education and reflects points made by De Geest (2011), Hollingsworth (1989) and others about teacher professional development needing to build on and possibly challenge previously held views. It also appeared to endorse findings in Ng et al. (2010) that changes in the beliefs of pre-service teachers can be directly related to experiences during their programs. What the course seemed to do was give the teachers not only tools and approaches to adapt for direct use in their classrooms, but more importantly, a framework within which they could critique the work of others and their own work as they went forward. It offered initial opportunities for the critical reflection that Ahmadian and Maftoon (2016) consider vital to language teacher development.

Finally, this piece of research had important takeaways for the researchers' own practice. Firstly, it increased their understanding of the individuality of learning processes. Secondly, finding patterns of development linked to issues the participants noted in their pre-course survey has had implications for how they approach courses. In their teaching they now more consciously focus on challenging or building on pre-existing experiences and beliefs. Lastly, helping pre-service teachers to build links between their own experience, across the range of more theoretical and practical courses they take, and then more making specific links into their school practice, is something they have tried to do in a systematic manner.

Combining learning about and experiencing target teaching approaches while addressing personal language skills, as was done in this study, was found to be both an effective and efficient way of addressing concerns about teachers' language proficiency. It is hoped that this study will contribute to greater understanding and wider consideration of such approaches to teacher professional development.

Limitations

While this study indicated that the course facilitated teacher professional development, a major limitation is that, in the main, it could only establish the potential for implementation in the professional practice of these pre-service teachers. The study was also conducted at a mid-point in the participants' training. The researchers hope to follow some of the subjects into school after they complete their pre-service program.

A second limitation is the nature of some of the reflection questions posed to the participants. Because reflecting on learning and on the application of the specific areas introduced in the course was considered integral, the questions tended to pre-suppose positive responses and affirmation that development had taken place. This could be seen as influencing the data. Nevertheless, questions about the application to school and the reflections on what the participants observed during practicum were left fairly open and allowed for the emergence of individual ideas.

A final consideration is that of reflexivity (Lewis, 2009). The researchers are tutors on the course, which may affect their views of the impacts on the participants and interpretation of the data. However, all the findings reported here are based on written evidence generated from participants, and mapping their ideas against the IMTPG was felt to help ensure greater objectivity.

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References

- Ahmadian, M., & Maftoon, P. (2016). Enhancing critical language teacher development through creating reflective opportunities. *The Journal of Asia TEFL*, 13(2), 90-101.
- Baker, A. (2012, June 20) Vietnam testing all its English teachers. *The PIE News*. Retrieved from <http://thepienews.com/news/vietnam-testing-all-its-english-teachers/>
- Choi, Y. H., & Lee, H. W. (2007). A model of English teacher development in Asia based on surveys on teacher qualifications and education programs. *The Journal of Asia TEFL*, 4(4), 1-34.
- Clarke, D., & Hollingsworth, H. (2002). Elaborating a model of teacher professional growth. *Teaching and Teacher Education*, 18, 947-967.
- Coenders, F. G. M. (2010). Teachers' professional growth during the development and class enactment of context-based chemistry student learning material. (Doctoral dissertation). Retrieved from http://doc.utwente.nl/71370/1/thesis_F_Coenders.pdf
- De Geest, E. (2011, September 11-17). Hearing the teacher's voice: Teachers' views of their needs for professional development. In L. Paditz & A. Rogerson (Eds.), *Proceedings of the 11th International Conference of the Mathematics Education into the 21st Century Project – MEC 21: On Turning Dreams into Reality. Transformations and Paradigm Shifts in Mathematics Education*, Grahamstown, South Africa. Retrieved from <http://oro.open.ac.uk/30780/>
- Eilks, I., & Markic, S. (2011). Effects of a long-term participatory action research project on science teachers' professional development. *Eurasia Journal of Mathematics, Science & Technology Education*, 7(3), 149-160.
- Guskey, T. R., (1986). Staff development and the process of teacher change. *Educational Researcher*, 15(5), 5-12. doi: 10.3102/0013189X015005005
- Hanington L. M., Pillai, A. D., & Kwah, P. F. (2013). Digital storytelling: Integrating language and content in the training of pre-service teachers. *Asian EFL Journal Special Edition: CLIL in Asian Contexts: Emerging Trends*, 15(4), 230-246.
- Hollingsworth, S. (1989). Prior beliefs and cognitive change in learning to teach. *American Educational Research Journal*, 26(2), 160-189. doi: 10.3102/00028312026002160.
- Huberman, M. (1995). Networks that alter teaching: Conceptualizations, exchanges and experiments. *Teachers and Teaching: Theory and Practice*, 1 (2), 193-211. <http://dx.doi.org/10.1080/1354060950010204>
- Hung, H.-T., & Yeh, H.-C. (2013). Forming a change environment to encourage professional development through a teacher study group. *Teaching and Teacher Education* 36, 153-165. <http://dx.doi.org/10.1016/j.tate.2013.07.009>
- Justi, R., & van Driel J. (2006). The use of the Interconnected Model of Teacher Professional Growth for understanding the development of science teachers' knowledge on models and modelling. *Teaching and Teacher Education*, 22, 437-450. doi: 10.1016/j.tate.2005.11.011
- Kolb, D. A. (1984). *Experiential learning: Experience as the source of learning and development*. Englewood Cliffs, NJ: Prentice-Hall Inc.
- Lewis, J. (2009). Redefining qualitative methods: Believability in the fifth moment. *International Journal of Qualitative Methods*, 8(2), 1-14. Retrieved from

- <http://ejournals.library.ualberta.ca/index.php/IJQM/article/view/4408/5403>
- Mala, D. (2016, June 2). Council to test all English teachers. *Bangkok Post*. Retrieved from <http://www.bangkokpost.com/archive/council-set-to-test-all-english-teachers/998229>
- Ministry of Education Singapore. (2016). English Language Entrance Proficiency Test. <https://www.moe.gov.sg/careers/teach/entrance-proficiency-test/english-language-entrance-proficiency-test>
- Ng, W., Nicholas, H., & Williams, A. (2010). School experience influences on pre-service teachers' evolving beliefs about effective teaching. *Teaching and Teacher Education*, 26(2), 278-289. doi:10.1016/j.tate.2009.03.010
- Singapore Department of Statistics. (2015). 'Population Trends', *Department of Statistics Singapore*. Retrieved from <http://www.singstat.gov.sg/publications/publications-and-papers/population-and-population-structure/population-trends>
- The Brunei Times. (2013, Nov, 13). Call for more teacher training courses. Retrieved from <http://www.bt.com.bn/news-national/2013/11/13/call-more-teachertraining-courses>
- Wang, X., Kim, B., Wen, J. Y. L., & Kim, M. S. (2014). Encouraging and being encouraged: Development of an epistemic community and teacher professional growth in a Singapore classroom. *Teaching and Teacher Education*, 44, 12-24. <http://dx.doi.org/10.1016/j.tate2014.07.009>

Appendix A

Pre-course Survey Questions

1. Have you experienced process writing before?
 - In school or previous study situations?
 - At [the institute]?

Give a brief description of what you did.

2. What is your opinion of the process approach as you have experienced it so far?

Reflections on Main Course Stages

1. After sessions on writing
 - What have you learned about your writing skills in the process of writing a story for an intended audience?
 - What did you do to improve your story to engage the audience?
2. After sessions on oral skills
 - What have you learned about your oral skills in the process of narrating and recording your story?
 - What did you do to improve the narration of your story to engage the audience?
3. After compiling the digital story
 - Do you think digital storytelling is an effective way for developing language skills? Give reasons to support your opinion.
 - What are the advantages or disadvantages of using digital storytelling as an instructional tool for language development?

End of course reflections

Please give examples of three things you learned or practiced on the course that you particularly hope to use when you start teaching. Explain why you have chosen these items.

Post-practicum reflection

- Describe a language class that you experienced or observed during your practicum. How did the teacher introduce aspects of the process approach to writing or learning?
- If you were teaching the same class what might you do the same/differently?
- Now that you have observed classes in school, how do you think you can apply some of the ideas and approaches introduced on the DST course? Give details for two or three ideas if you can.
- Are there any ideas from the course that found useful but that you now feel you may not be able to put into practice in school?