
Title	Do qualifications matter? Exploring art teacher education in Singapore
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Title: Do Qualifications Matter? Exploring Art Teacher Education in Singapore.

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Do Qualifications Matter? Exploring Art Teacher Education in Singapore.

Introduction

This research sets out to investigate if initial teacher preparation (ITP) at NIE makes a difference in beginner art teachers' knowledge base as exemplified through their instructional practices. The research intends to answer this question by examining beginner art teachers from two different programmes in NIE, which differ significantly in the length of their training.

Two research questions are formulated to address the aim of the study:

1. What impact do art teachers' qualifications have on their knowledge base for teaching?
2. How do art teachers with different qualifications make decisions on classroom teaching practices and how are these decisions a result of their knowledge base?

The question as to whether teachers differ in their instructional practices and therefore, their effectiveness, is vital to educational research. Pertinent to this question is if teacher education makes a difference in teachers' instructional practices, hence influencing the types of learning students receive.

Literature Review

Teacher education has gained prominence across the globe and a country such as the USA provides many different teacher certification programmes. Unlike the USA, Singapore does not have many alternative teacher certification programmes by different organisations. Majority of the teachers in Singapore undergo 'certification' and training in NIE before they embark on their teaching career but there still exist different types of ITP programmes within the institution itself. This critical issue of teacher education is highlighted by Arthur Levine, previous president of Teachers College, Columbia University. He (2006) laments the lack of standard approach to teacher education, unlike law and medicine. Curriculum in teacher education programmes is often in disarray and the period of teacher education has no minimum requirement. Period for teacher education can range from one year to five years. His comments reflect the situation in art teacher training in Singapore. This research study which explores teaching practices of recently graduated art teachers from NIE's BA and Diploma programme is a case in point. In Singapore, there is no government stipulation as to which levels the different groups of art teachers should teach. Both groups of teachers (diploma and graduate teachers) are expected to teach art across all the levels in secondary schools. Therefore, with regards to art teacher training, Galbraith and Grauer (2004) suggest that there should be more careful research into the various programmes that prepare art teachers and help shape their development. Indeed, as mentioned by Day (1997), cited by

Galbraith and Gruer (2004), there will always be more successful programmes than others and that it is therefore important to differentiate between them.

In line with Galbraith and Gruer's (2004) view, the main purpose in researching art teacher education is to find out if teachers from different programmes in NIE develop different levels of knowledge base for teaching art. Are our art teachers well-prepared to take on the challenges in the classroom? Are our programmes in NIE rigorous? Is our degree programme stronger since the length of the programme is longer than the diploma programme? What are the implications of the shorter diploma programme in preparing art teachers? Or is there no difference in the knowledge base and teaching practices between these two groups of recently graduated art teachers? These questions have direct implications for NIE initial teacher training as well as policies regarding teacher education.

Current Conceptions of Teacher Education and Teacher Knowledge Base

Teacher education has been a central concern in Singapore and the latest policy, stated in Primary Education Review and Implementation Report (PERI), indicates the government's commitment to bring about quality teaching in the classrooms by requiring the hiring of only graduate teachers for English, Maths and Science in primary schools from 2015. McKinsey's report (2007) on high-performing education systems aptly captures the beliefs of many policymakers when it wrote that the "quality of the education system cannot exceed the quality of its teaching" (p.19). Policy makers who believe education is the key to a nation's survival are ready to invest large amount of resources, usually monetary, to ensure that the country's teaching force is well qualified to educate its future generations.

Darling-Hammond (2000) having conducted extensive literature review on teacher education concludes that teacher education does makes a difference in teachers. Based on the evidence gathered from numerous studies on teacher education, they suggest that teachers who have undergone more and longer training are more confident and successful with students than teachers who have little or no prior teacher training at all. Darling-Hammond (2000) explains that the demands of teachers are increasingly greater as they have to teach for 'problem solving, invention, and application of knowledge'(p. 167) and this calls for

teachers with deep and flexible knowledge of subject matter who understand how to represent ideas in powerful ways can organize a productive learning process for students who start with different levels and kinds of prior knowledge, assess how and what students are learning, and adapt instruction to different learning approaches.
(ibid)

She believes that an 'important contribution of teacher education is its development of teachers' abilities to examine teaching from the perspective of learners who bring diverse experiences and frames of reference to the classroom.' (p.166). This belief in the importance of teacher preparation is supported by Shulman (1986) when he explained the role of

pedagogical content knowledge, which is often developed in a well-designed Initial Teacher Preparation programme. Boyd, Goldhaber et al.(2007) while studying the effects of features of teachers' preparation programmes, found that preparation that is grounded in the practice of teaching have positive effects on teachers' first year of teaching. This finding is significant as the beginning of a teaching career can be daunting and newly graduated teachers will need to be well-prepared for the challenges in the classrooms. Initial teacher preparation is therefore important in building teacher's confidence, competence and motivation.(Lim-Teo, Low et al. 2008).

But in order for teachers to become competent and skilful, there needs to be 'a solid body of knowledge' (Darling-Hammond and Baratz-Snowden 2007) that serves as a foundation for the judgment and analytic ability to be developed. We shall now examine what are some essential knowledge components that competent and skilful teachers should possess.

Subject matter knowledge and PCK

A number of researches have shown that teachers' subject matter knowledge correlates with student learning and achievement (Mullens and et al. 1996; Carlsen 1997; Hill, Rowan et al. 2005). In these studies, it is found that when teachers have weak subject matter knowledge, they are less able to choose appropriate examples and activities to challenge their students, ask critical questions to engage students in discussion and participation (Haciomeroglu, Haciomeroglu et al. 2007). In other studies that investigated subject matter knowledge and PCK (Kapyla, Heikkinen et al. 2009; Kaya 2009), it was found that subject matter knowledge has strong effects on pre-service PCK. For example, Kapyla, Heikkinen et al. (2009) study examined 10 primary and secondary student-teachers' content knowledge in photosynthesis and plant growth and how content knowledge influenced PCK. Their study showed that it was difficult for teachers who were considered as content-novice to recognise students' misconceptions in science when they did not even realise their own. Their findings parallel Kaya's findings on pre-service science teachers in Turkey. Using both quantitative and qualitative methods, Kaya's (2009) study found that there are strong relationships between pre-service teachers' content knowledge and PCK.

However, not all these researchers agree on how PCK should be taught or developed in teacher education. For instance, despite the fact that student teachers who are considered content experts (because they took more content modules in their pre-service programmes than student teachers who are considered as content novice) and were more able to handle content structure and students' conceptual problems (Kapyla, Heikkinen et al. 2009), they were not much better in producing topic-specific teaching methods than the content novices. Kapyla, Heikkinen et al. therefore argued that PCK is a separate domain that should be explicitly taught and that content knowledge will have an effect on PCK but only to a certain extent. Contrary to Kapyla et al., Lederman, Gess-Newsome et al (1994) do not think that PCK should be taught as a separate set of knowledge to be learned. In fact, they believe that pre-service teachers' tendency to compartmentalise the two types of knowledge might indicate their level of PCK. They opined that perhaps over time, the blurring of subject matter

knowledge and PCK will occur with more teaching experience and continuous use of knowledge structures in the subject.

Subject matter knowledge and PCK in art teachers

Meeson (Meeson 1974), Eisner (1994), Goodman (1978) and Siegesmund (1998) have argued extensively that art is one of the many 'forms of representations' (Eisner, 1994, p.17). Such forms of representation could be 'auditory, visual, kinaesthetic, and gustatory; they manifest themselves in music, art, dance, speech, text, mathematics and the like'. All these representations have meanings found in their own content and therefore, perform 'unique epistemic functions'. Art, existing in general education context, as Eisner argues, should therefore help students understand the meanings embedded in these forms of representation. Education should also enable the young 'to learn how to create their own meanings through these forms' (p.19).

Eisner (2002) lists the following skills and knowledge that art teachers need to know to teach well (p. 52-53):

- Knowledge of technical requirements
- Knowing how to engage students' imagination
- Knowing how to demonstrate or model the kind of language and skills students are expected to learn
- Knowing how to give constructive comments regarding students' works
- Knowing how to set up tasks that allow for both personal space and interpretation; tasks have clear focus for students to understand the why
- Knowing how to make connections between earlier and current work and also the world outside the classroom
- Knowing how to organise materials in the art studios

The aforementioned view on art requires art teachers to know the 'language' of art: knowing how to express through art, and interpret this form of representation. Likewise, Levi and Smith (1991) argue that art should be taught as a humanity as it has become a norm to 'utilise the example of language as a source of our basic metaphors of analysis.' (p.180). They refer to the painter's palette as 'alphabet of colours' (p. 180) and concepts such as lines, shape, colour, texture etc. that are used in the organisation of the language of art. They explain that teaching art as a humanity involves 'explaining the ways in which art exhibits life concretely, stimulates the imagination, integrates the different cultural elements of a society, and presents models for imitation or rejection.' (p.181). Using their proposed discipline-based art education (DBAE) framework, they believe that the general goal of art education in school is to 'cultivate percipience in matters of art by teaching the concepts and skills of art conceived as a humanity' (p. 206). The content under such a curriculum entails *Arts of Creation* (artistic creation), *Arts of Communication* (art as language), *Arts of Continuity* (art history) and *Arts of Criticism* (aesthetics).

However, a constant challenge that confronts art teacher education is the narrow conception of knowledge base required for teaching. Knowing how to draw and paint are often considered the pre-requisites of an art teacher and therefore, many art teachers think that making art equates learning art. Unfortunately, such is a narrow conception of art learning. Chapman (1982) cautioned that making art is not the only valid way to learn about the subject. She highlighted that it is unfortunate that many studio courses in art are not well-balanced with in-depth studies in history of art or art theory. Day (1969) in his study attempted to find out if ‘the study of art history provide positive impetus for art activities at the junior high school level’ and if ‘pupils gain as much knowledge of subject matter and intellectual concepts of art history in an art history-activity integrated program as in a more traditional lecture-slide art history program?’ (p. 57). His findings showed that art history (on Cubism) when integrated with related studio art activities helped students gain more knowledge in the subject matter. The students who underwent the integrated approach of teaching performed better in their written test as well as produced better quality art works than students who received traditional lecture-slide art history that is segregated from their studio activities.

If we believe that art education is not just about making art but also involves the understanding of art in relation to historical, social and cultural contexts, art teachers must necessarily possess such knowledge base and integrate it meaningfully with related art studio activities. The current Singapore’s Visual Arts Syllabus for Primary and Lower Secondary defines ‘art content’ to involve art making and art discussion. Art discussion being naturally a part of teaching and learning is a relatively new concept in Singapore classrooms. This mention of art discussion was only introduced into the syllabus in 2009. MOE has avoided using the term ‘Art History’ as it might give art teachers the idea that they have to structure their lessons separately from studio activities. MOE’s advocated approach to art education parallels Day’s (1969) view.

Art as Ill-structured Domain

Art, could be seen as an ill-structured domain ‘as there are few things about art that are factually true or false’ (Koroscik 1993). Therefore, research on art learning is all the more difficult to pursue as compared to other domains such as Physics or Maths. Spiro et al. (1988) define ‘ill-structuredness’ as ‘that many concepts (interacting contextually) are pertinent in the typical case of knowledge application, and that their patterns of combination are inconsistent across case applications of the same nominal type.’ (p. 4). Their research reveals the types of problems faced by biomedical students when learning in an ill-structured domain. They found that these biomedical students, who are considered as advanced learners still encountered obstacles in apply their knowledge in their practice. One main issue in the teaching and learning of ill-structured domain is known as ‘reductive bias – the pervasive role of oversimplification in the development of misconceptions’ (p. 5). They further identify several forms of bias in the teaching and learning of ill-structured domain:

1. Oversimplification of complex and irregular structure

2. Overreliance on a single basis for mental representation
3. Overreliance on 'top down' processing
4. Context-independent conceptual representation

Efland (1995), discussing how knowledge in art is acquired, cautions the potential risk in DBAE curricula - the temptation for teachers 'to develop ideas of content from each field independently despite the fact that there are overlapping ideas among them. Teachers who adopt DBAE curricula framework may tend to treat each sub-discipline in isolation when in fact there are deep connections among them.' (p. 149). In order to understand art in depth and avoid reductive bias, art teachers must form numerous connections between studio studies, art history, aesthetics, and art criticism. This means that art teachers who only attend to the formal elements of an art work and neglect the historical and cultural contexts within which the art work is created are artificially compartmentalising art knowledge.

In teaching and learning in art, Koroscik (1993) cautions that 'filling-the-head' approach that gives exclusive attention to expanding the student's knowledge base rarely leads to higher-order understanding. She suggests that instead, good teaching in art should have a balanced focus on broadening the learner's knowledge base and increase the repertoire of knowledge-seeking strategies. This balance could be seen when students display curiosity because they recognise a gap in their own knowledge base. She calls this 'cognitive discomfort' (p.23). Such a teaching approach requires that teachers have a good knowledge base in the subject matter so that they could draw connections between students' existing knowledge and new ideas in students' works and recognise gaps in students' knowledge and give attention to developing knowledge-seeking strategies.

Art Teacher Education

There is a belief that university training imparts in-depth knowledge and working methods that allow pre-service teachers to stay current with the developments in their discipline. Higher level subject matter competency for teachers through an undergraduate programme is therefore considered desirable. However, scepticism abounds over the frequently fragmented curricula that lead to superficial understanding of structure in the subject matter (Martin 1999).

Short, (1995) in her study of 18 pre-service teachers specialising in visual arts who had advanced learning status and visual arts specialization, found that these pre-service teachers still displayed overly simplistic thinking. The pre-service art teachers had 'shallow understandings and superficial domain knowledge' (p. 167). These teachers instructional making, reflected in their lesson plans, exhibited similar characteristics. She cautioned that satisfactory completion of university coursework does not necessarily guarantee domain understanding. Her study has serious implications for pre-service teacher education, especially for NIE which has even shorter programmes such as the two-year diploma ITP. If pre-service art teachers in Short's study displayed superficial understanding of subject matter

despite their extensive training in an undergraduate programme, what could we expect from art teachers who graduate from a even short Diploma programme? Would students be receiving different quality of teaching due to their teacher's different academic background?

Methodology

Qualitative research design was used for this study as the objective of the research is an in-depth exploration into the relationships between teachers' academic qualifications and their knowledge base as exhibited through their classroom practices. Literature review on studies related to teacher characteristics, teaching practices and their relationships on students achievement revealed a heavy reliance on quantitative research methodology (Goldhaber 1996; Clotfelter 2007; Vu, Jeon et al. 2008). However, these quantitative studies often failed to answer how and why teachers' academic qualification or professional training (as shown in Bonnet, 2008) exert null, negative or positive impact on student learning. Quantitative studies do show patterns and correlations between variables but they cannot always explain the causal mechanism since most of these variables are social processes (Hage and Meeker 1993). On the other hand, qualitative studies such as those by (Haciomeroglu, Haciomeroglu et al. 2007) and (Carlsen 1997) provide depth in helping us understand the possible reasons behind teachers' subject matter knowledge and pedagogical content knowledge, and their influence on teachers' teachings in the classroom. The details in these case studies provide rich details to help us interpret the complex relationships among teacher preparation, their knowledge base and their teaching practices. This is important as qualitative research in education, if anything, is about trying to understand what teachers and students do in educational settings (Eisner 1998). This study shares the same spirit and goes beyond questionnaires and interviews to include lesson observations on newly graduated art teachers.

Eisner associates educational criticism with art criticism - where art connoisseurs or art critics are able to discern special qualities that make art great and are skilled in helping others see these qualities that the works of art possess; educational critics, he believes, should be able do the same for education (Eisner 1998; Hatch 2002). His framework of educational criticism was used in the case studies of two art teachers, each with different initial teacher preparation in NIE. Eisner's educational criticism framework consists of description, interpretation, evaluation and thematic, and is particularly relevant for this study (p. 88).

In describing the educational setting, such as school, classroom, art room or a process being studies, researcher is reminded to capture the 'emotion' of the situation that help readers envision what the place or process is like. Selectivity in describing the scenario is inevitable but such can be seen as providing a focus for the readers; only what counts for the purpose of the research is described instead of an attempt to describe everything and risk losing the focal point for the readers. In my study, description was focused on teachers' teachings, the classroom/art room environment and the interviews. The intention of the description was to help readers understand how these art teachers planned and taught and get a sense of what is happening in the classroom/art room.

Closely related to description is interpretation. Interpretation can be seen as 'accounting for' what is observed following description. Interpretation is critical in giving meanings and reasons for what is experienced and to place in context that experience or observation. I view Eisner's interpretation as similar to data analysis. For my research, teachers' explanation on the way they planned their lessons and teach, their actual classroom teachings and interview were analysed and given sense. During this activity, theories might be used as guides where

applicable to account for what was observed. The issue of validity is important on data analysis. How do we know that the researcher is not seeing things he or she wants to see? In order to make my interpretation and other aspects of my criticism valid, three sets of data was collected and described: lesson plans, video recordings of actual classroom teachings and interviews. The multiple sets of data were triangulated and provided validity to my interpretation, as well as insights to my work (Ball 1993).

The next aspect of educational criticism can appear controversial. Eisner believes that educational criticism is not about adopting a distant, detached observer stance. Educational critics are actively involved in the task of appraising what is observed and this act of assessment and evaluation involves value judgements. When evaluation is carried out, there exists in the evaluator a conception of what is educationally virtuous. As underlined by Eisner, 'There may not be standards for measurement, but there are criteria for judgement' in educational evaluation. Criteria for evaluation in this study were anchored in the ways art was represented by the newly graduated art teachers, how art lessons were planned and the reasons for them, how concepts were explained to the students, the types of activities being designed and the types of questions asked by the teachers provided the basis on which my evaluation was carried out.

Methods

Schooling is a broad concept and can include components such as the environment of the school/classroom, how time is allocated for the different subjects or how students are assessed. Eisner refers to the intentional, structural, curricular, pedagogical and evaluative as all the possible dimensions of schooling (Eisner 1998p. 73-81) that can be studied. For this research, the curricular and pedagogical issues served as 'prefigured focus' (p. 176) for the study. The curricular aspects included subject content, the learning objectives of the curriculum and the activities planned while pedagogical issues consisted of how subject was represented by the teacher. The following were the methods used.

Classroom observations

Instead of relying exclusively on interview data or survey data as second-hand accounts to learn about teachers' instructional practices, classroom observation was the preferred method as it provided 'live data' from naturally occurring settings (Cohen, Manion et al. 2007). Classroom observation is an analytically filtered method (Gibson and Brown 2009) where the practices of teaching is being researched and that the practice is data itself to be selected to answer the research question. Some of the strengths of observational data include researcher's ability to see things that might be taken for granted by participants and therefore, left out during interview. Sensitive information that participants might not bring up during interviews may also be learned during observations (Hatch 2002). Data collected from classroom observation in this study was further triangulated with interviews with the teachers.

A total of two art teachers (one teacher with diploma and one graduate) were involved in this study. Two lessons per teacher were video-recorded and analysed. The observations were 'semi-structured' as I went into the classrooms with prefigured focus on issues to look out for and the observation data served to provide illuminations on these issues.

A typical duration of art lesson in a government secondary school is between 1 hr to 1 hr 30 min. Teachers participating in the study were informed of the classroom observations. Video-recording of the lessons were done in a manner that ensured as little disturbances as possible to the normal functioning of the class. Most of the recording was carried out at the back of the classroom or art room and excess movement of the researcher was avoided.

In-depth Interviews

Interview data affords another dimension to our understanding of why teachers do what they do in class on top of the observation data. In-depth interview moves beyond the surface to probe participants' thoughts and feelings (Maykut and Morehouse 1994). The interview in this study was semi-structured with questions that addressed issues about the teachers' instructional practices and their prior training in NIE. Although some interview questions had been identified prior to the interview, I was still able to 'probe beyond the answers and thus enter into a dialogue with the interviewee' (May 2001). There was no time limit to the interview sessions, thereby ensuring prolonged engagement, establishment of rapport and trust with the interviewees (Maykut and Morehouse 1994).

Interviews with the two groups of teachers (diploma art teachers and graduate art teachers) were conducted individually, audio recorded and transcribed. The interviews were conducted in the respective schools at a place conducive for the purpose. Having the interviews done in schools gave teachers a sense of familiarity and ease, thereby reducing possibilities of stress or discomfort that might have affected the interview data. Interviews with the teachers were conducted after the two lessons observations, and in the two cases right after the last observation was completed. This had prevented any memory lapse by the teachers when they discussed their lessons.

Data analyses

Observation, interview and document data were reviewed to suggest explanation for the phenomena observed. Since this research was exploratory in nature, which was to discover the relationships between teachers' academic qualifications and their subject knowledge, and if the relationships between these two variables influenced teachers' teaching practices, qualitative content analysis (QCA) was used (Schreier 2012). QCA focuses on selected aspects of the materials and this practice is in-line with the framework that was adopted for observing teachers' practices in the classrooms. For instance, only certain aspects of schooling were observed. All collected data that was of interest and was relevant to the research question was sorted into categories of a coding frame. Categories under which the data was coded provided the space for this research to capture the 'complexity and interconnectedness of everyday actions' and 'take into account of apparent inconsistencies, contradictions, discontinuities and relatedness in actions' which I suspected might occur frequently between the two set of data and even within each set of data itself (Cohen, Manion et al. 2007; Schreier 2012). QCA also provides the flexibility that allows data to be scrutinized for categories to emerge through coding, or 'patterns' (Strauss and Corbin 1998) to be discovered in the process and new information on how the different sets of data compare (Schreier 2012).

Issues of Reliability and Validity

Educational criticism, as with all other qualitative inquiries, is not without its detractors. Issues of subjectivity never cease to confront qualitative researchers. Subjectivity versus objectivity often dominates concerns of reliability in qualitative study. Maykut and Morehouse (1994) suggest that instead of calling researcher's views in qualitative research 'subjective', 'perspectival' will be more fitting. Being perspectival means that qualitative researcher include different perspectives, not just his or her own. 'Structural corroboration' (Eisner, 1998, p. 110) where sources of evidence are triangulated further afford credibility and trustworthiness. Another characteristic of qualitative inquiry is the emphasis on discovery rather than proof. Discovery made in qualitative research is not meant for sweeping generalizations but should be viewed as 'contextual findings' (p.21) and this statement is consistent with my position in this study.

Limits of research

The small sample size for this research was its biggest limitation. While the size might have limited the generalizability of the research's result, especially across different institutions, the research was still useful in reviewing NIE's initial teachers training programmes and understanding its own graduates. However, Guba and Lincoln [(1981) as cited in (Hammersley 1993)] argue that instead of thinking about generalizability, the concept of 'fittingness' will be more useful in qualitative research. To ensure this research's 'fittingness', extensive information on the teachers, the setting and methods were provided so that others can make 'informed judgment about whether the conclusions drawn from the study ... are useful in understanding other sites'. This research was designed with the aim to create further 'resources' so that others who are also interested in teacher education can utilise in thinking about similar situations.

Findings

Alice and Debbie were focusing on rather two different aspects of art learning. Debbie was teaching her secondary one students an 'art technique' which was drawing while Alice was trying to develop in her secondary two students 'process' skills through fashion illustration. Students in Alice's class were given the theme "Vegetables" for their illustration works. Alice's students were tasked to explore with the vegetables' forms and shapes in their fashion illustration activities. Alice wanted students to learn how to explore what the various mediums (such as markers, paint, colour- pencils) and techniques (such as printing, stencilling, ink-and-wash) could achieve in fashion illustration.

This study did not surface significant pedagogical differences between the two teachers. Both teachers gave predominant attention to studio practice with little emphasis on art discussion, which was specified as content in the national syllabus. When asked about the influences of ITP on their own teachings, both beginner teachers identified 'practical classes' being the ones that they found most useful. However, Debbie, the graduate art teacher, displayed a more mature view of her role as a teacher and her training in NIE. All these findings will be discussed individually in more details.

Designing curriculum

Students' needs and interests were the two common considerations for beginner teachers' planning. Debbie's lessons on drawing were a result of a school project between departments to improve students' learning. It had been identified by the Design and Technology department that students in Debbie's school were able to design but unable to translate their ideas through drawing in D&T class. Therefore, in order to address the problem, it was decided that drawing should be taught to students during their Art lessons. Besides what had been identified during meetings prior to Debbie's planning, Debbie also felt that most of her Secondary 1 students were not confident in art and thought of themselves as being 'hopeless' in art class. Therefore, she believed that empowering students by teaching them the basic studio techniques such as drawing, they will be interested in art:

In a way, we are trying to plant this interest in them because a lot of students have difficulties, mentality that, oh yeah, art hopeless, I can't draw, I don't have the talent. So we are trying to prove to them that if you follow instruction, you don't need the talent, you can do it. Give them, plant them this hope.

...we realise that it's the technique that is scaring them off.

Similarly, Alice recognised both the needs of the students as well as designing lessons that might be of interest to her students. She was given freedom by her department head to decide on what she wanted to teach in her lessons. She felt that process involved in art making was important and especially so if students were to be offered art at 'O' level exam. Her current Secondary 3 students who were offered art were considered weak in their processes:

So I like the process and I think that at Secondary 2, it helps them a lot especially when they are going to take Secondary 3 art.

We are facing a lot of problem with our Sec 3 batch. They simply do not know how to develop [ideas]. And that's why I told my Sec 3 openly that you are now learning what I'm teaching the Sec 2s.

...so throughout the process it's very meaningful for students.

Alice identified fashion illustration as a topic that might be interesting to her students as she was teaching in an all-girl secondary school:

... they have not touched fashion design before and being in a girls' school they can quite like it but they do not know how to do it

Besides considerations of students' needs and interests, another factor that impinged on beginner teachers' planning was their familiarity with the topics. For instance, Debbie applied what she learned in ITP to teach her students:

Yeah, I use some of the things I did in first year to teach the students... That one is actually a modification of what I did in NIE.

Debbie captured some key reasons why teacher's knowledge on a chosen topic was critical in teaching:

Basically, I like to teach them what I have done before, be it at NIE or somewhere I have tried out. You know, I can teach it better, I can understand the process better as well. And it's also better delivery when you explain things or when students ask you things....there's a different feel than when you have really tried it yourself.

However, what was considerable different between Alice's and Debbie's rationale for the selected topics was authenticity. Alice attenuated the concept of fashion illustration as a valid art form and emphasized instead on dispositions in art. Although concepts, skills, knowledge and dispositions were all valid and critical components in well-planned lessons, artificially planning lessons to 'teach' these dispositions did not allow students to acquire genuine art skills. In comparison, Alice focused on imparting her students basic drawing skills and techniques which she thought would also helped her students be more observant in the process.

The common weakness in the beginner teachers' design of units of lessons for the year was the lack of integration among the different art disciplines. For instance, Alice devoted two weeks to the introduction of Southeast Asian artists and where she taught students formalistic criticism. There was no continuity to the lessons after or prior. Debbie introduced students to pointillism history and artists associated with the technique but this was brought in to teach students techniques with no attempt to provide broader understanding of the artists or historical contexts.

Pedagogical Practices in the Classroom

There are certain instructional practices that lend themselves more readily to the teaching of art. Burton (2001) in his study on how art teachers taught art summarised some main instructional practices used by art teachers. The teaching strategies/styles included direct presentation, demonstration, one-to-one coaching, small group work, exploration of mediums and techniques, students developing their own project with little teacher influence, group discussion and interaction dialogue (p.135). Delacruz (1997) identified teaching methods such dialogue, peer group discussion and critique and inquiry training. Both art teachers used a variety of teaching strategies such as demonstration and one-to-one coaching although they were focusing on different aspects of art learning. For Debbie, she demonstrated contour drawing, grid drawing and shading to her students in class so that they could use the same techniques to draw a realistic portrait. Alice provided live demonstrations on the different mediums used for fashion illustration, as well as examples of what the explorations of mediums could look like for her students.

At a glance, Alice's approaches contained some characteristics of 'higher order' (Kowalchuk 1993 p.14) teachings, where 'uncertainty' and 'self-regulation' (p. 14) were present in the

students' learning. However, as mentioned earlier, Alice's lessons lacked authenticity. There was no integration of the various art disciplines in her approaches that would have provided depth in students' understanding of fashion illustration as design. The lack of integration was also present in Debbie's teaching approaches where there was only emphasis on acquisition of skills. This lack of integration was also observed in other studies of novice art teachers (Kowalchuk 1993; Bain, Newton et al. 2010). Both teachers in this study failed to contextualise the lessons where students would achieve 'enduring understandings' of the discipline (Wiggins 2005). For instance, Debbie could have investigated portraits and the use of portraits among artists where she could then move to teach skills so that students could explore representing their own identity through self-portraits. Alice could have designed her lessons based on the theme of fashion and explored with students on how fashions differed in different cultures and different periods of time. There could also be a study of how world renowned fashion designers developed their ideas so that students could learn about ideas development and appreciate the relevance of fashion design. Unfortunately, integration across the various disciplines of art was absent to help students recognise the significance of art.

Perceptions of ITP and their own teachings

Both beginner teachers had mixed feelings towards their ITP. They felt that 'practical lessons' such as studio classes during ITP were the most useful as they could apply what they learned in their own classroom teaching. Alice included classes where she was taught to plan a unit of lessons useful as well.

NIE... informs me about how the structures of art go. For example, you need to know the basics... Because before we go into NIE, although we know skills, we know artists, we know techniques but we don't know how to package them into lessons. Not as if NIE make us sit down and do lesson plan, but I feel that the lesson that we go through right, make us more aware of what this technique is or what this particular technique is for. You can use it to do what, you can use it to teach what.

(Debbie)

Maybe like, Mr J's lesson, for example, he gives us... actually this exploration part, is part of what I did in NIE also.

Interviewer: So that part you find it very valuable?

Yeah, this exploration part. Like for example, my Sec 3s, because what I did different with my Sec 3 is that I get them to explore, same thing - things around the art room...

I think it does help. Especially the practical part, like your assignment.

(Alice)

Negative comments of ITP courses included the design of assignments, the perceived unrealistic case scenarios given in ITP and weak links to practice:

Those essay writing, I don't think every assignment, write an essay is necessary.

I wouldn't rate it as most important, it will be like, erm, good to know, yeah, but assignments, writing essay types, I think it really kills because maybe, because when you are an art person or creative person, you do not like to write essays also. Maybe that's part of the reason but really, if now I sit back and think, those essays that I write I don't remember as well.

(Alice)

In a way, I'm well-prepared for the topic but I don't think I am short-changed of any techniques or anything but non-art side, like pedagogies, classroom management, all these is really trained on the job. If you are saying if those things are applicable, those things are not applicable because things that they teach are perfect class situations. It doesn't apply here.

Some things are useful but of course not everything. Depends on how you use it and things like that. I'm not rejecting everything that they teach as not useful but because when I teach I won't go back to, ok, which theory and who I should use this, er, no, this come as in (being) reflective, whatever the students do and then how I reflect and react.

... Who will think of Piaget while teaching, I have enough names to remember...

(Debbie)

The criticisms by both beginner teachers inherently reveal the urgency of courses in ITP to have stronger linkage to classroom-based experiences (Martin 1999; Prentice 2002). Therefore, it was not surprising that Debbie talked about how she valued her teaching practicum and saw the usefulness of it:

I think the best is still practicum, seriously.

For the teachers, there is mentor to teach you.

(Debbie)

In relation to practicum, Debbie also found that professional development workshops for beginner teachers by STAR, a body of MOE, to be extremely helpful as:

I guess what STAR is having now, the beginner teachers camp or workshop, it's not bad because it's realistic, tested and proved techniques or lesson plans or whatever they have.

Since the workshops were conducted by ex-teachers or experienced teachers, she felt that such workshops where teachers shared their teaching strategies and stories gave her ideas for her own practice.

One distinction between Debbie and Alice that arose from the interview was Debbie's disposition and efficacy belief – there was a firm sense of ownership of her own practice and students' learning. Her comments on her own responsibility to draw links between what she learned in ITP and her own teachings implied a recognition that as a professional, reflective practice was important:

...I think teachers coming from NIE, you have to find your own links. Because for us, we enter at adult age, so we do things differently.

NIE is like a jar of ink, you immerse yourself and then when you come out, you are still black, and then like how I am going to take myself and then diffuse other jars of water to make it black.

When asked if she felt that there was enough pedagogy of the subject taught to her, Debbie acknowledged that 'a lot is still based on trial and error in school. Like I say, teach and you learn along with the students'.

Such dispositions found in Debbie could be due to the undergraduate programme in NIE that instilled in her critical thinking, developing beliefs and values across the different courses over four years as university has often been regarded in educating its students these characteristics (Roth 1999). A study by Williams, R. (2009) also corroborates with Debbie's self-efficacy. The four years of graduate programme, compared to the two years of intensive diploma programme, could have provided more opportunities for Debbie to cultivate these dispositions and the whole degree experience could have contributed to her personal self-efficacy.

Despite Debbie recognising that a lot of her knowledge in teaching was gained in the classroom, one shortcoming she felt of ITP was the perceived lack of training in teaching the exam syllabus. She thought that a beginner teacher's reputation, as well as practical issues such as performance bonuses, was at stake if the beginner teacher could not prepare her students well for the exam. When I asked her if her own studio classes in ITP could help her in teaching students the processes in art, that were similar to 'O' level coursework, she did not think so:

Yes, it's (studio classes in ITP) more free. There's no boundaries. Our lecturer won't tell us – no, you can't do this. No you can't do that. You should develop it this way. They don't out us on a leash. For 'O' level students, there are some things they have to keep to although it is not stated anywhere. Oh, your students can do anything that they want, they say that...but in fact, we are human beings and this is not what they want. I don't know how to explain it but this is not what they want.

Her 'suspicions' were confirmed by her school senior art teacher, who happened to have experience in assessing 'O' level works. As a result, a module in ITP to prepare beginner teachers for the teaching of exam syllabus would be useful in her opinion. Although Alice did not talk about the need for learning to teach exam syllabus, her concern in teaching her

students the processes in art making was motivated by the required preparatory works in the 'O' level coursework.

Implications of Findings and Recommendations

The findings from the study did not show a clear difference in the teaching approaches by both beginner teachers with different qualifications. The teaching approaches were narrow, lacking of integration among the different art disciplines which as a result, failed to offer students a deeper understanding of art.

Although Debbie's delivery of lessons was narrow but it was authentic in the sense that such teaching approaches are common of an arts school, where integration of the various disciplines is hardly known. Fine arts schools tend to expect their students mastery of the different art techniques in different studio classes; art history and theory classes are often taught separately and distinctly from one another. Debbie seemed to be applying what she learned in her own fine arts training during ITP where she was concerned about teaching her students the technique of drawing. This could be a reflection of the apparent contradictions of the roles of ITP in NIE, where students are treated both as art students as well as future teachers. This could have resulted in a 'disjuncture between the subject matter needs of teachers and what they study as undergraduates' (Thornton 2000 p. 6). The findings could also be an indication of the lack of pedagogical content modules in NIE ITP where the 'disjuncture' could be addressed or the finding simply points to insufficient time within 4 years to learn both the subject matter and pedagogy (Darling-Hammond 2000).

The findings, though limited for the purpose of generalising, may suggest a slightly better grasp of subject matter knowledge by Debbie as compared to Alice, the diploma teacher, whose delivery of lessons was unclear as it was muddled with the teaching of fashion illustration with the 'teaching' of processes in art. Debbie's objectives for the lessons, on the other hand, were straightforward and the activities designed were relevant to the objectives. This finding is consistent with research that shows the positive relationship between teacher subject matter knowledge and pedagogical content knowledge (Carlsen 1987; Carlsen 1997; Canbazoglu, Demirelli et al. 2010).

Unexpected was the observed sense of self-efficacy in Debbie which was absent in Alice. This is an interesting observation that calls for us to question the differences in experiences between pre-service teachers in the graduate and diploma ITP which are both housed within the university setting. There is considerable discussion on the advantages and disadvantages of teacher education programmes in universities (Martin 1999; Roth 1999). Advantages of teacher education within university included the intellectual setting that often encourages inquiry and reflective thinking which was glimpsed in Debbie's interview (Reiman 1999) but somehow absent in Alice's. Is it the degree experience or sheer length of time for more intellectual rigour in the degree programme that helps develop this sense of self-efficacy? This warrants more probing into in the next stage of research with more participants.

Both beginner teachers' appreciation for more direct application of knowledge and skills learned in ITP calls for closer collaborations among university, the Ministry and schools. For instance, university lecturers could be more involved with latest happenings in schools. Although some university lecturers at NIE are invited to sit on the syllabuses review committees, they are not actively involved in designing the syllabuses or involved directly with setting assessment standards to really know what are expected of students, and therefore of teachers in schools. Often, there is a theory and practice disconnect where much of what is taught during ITP has no direct links to practice of teachers in classroom. The fact that most lecturers in NIE have no teaching experiences or even if they have, the experiences have become obsolete in the fast changing classroom environment is often the cause of such a situation. A more integrated relationship with the Ministry and schools will allow better continuity of professional development after teachers' completion of their ITP (Martin 1999; Murray 1999). Currently, there is limited communication between schools, NIE and the Ministry.

Conclusion

Initial Teacher Preparation is often regarded as critical in imparting beginner teachers with the required knowledge, skills and dispositions for the profession. ITP in NIE included a variety of programmes such as degree and diploma programmes which have different length of training. This study did not see a contrasting difference in the instructional practices between the two beginner teachers from the two different ITP programmes. However, the findings did suggest that better integration between subject matter knowledge and pedagogical content knowledge in ITP would be needed for a more comprehensive representation of the subject by the teachers. The issue of self-efficacy and degree experience was not expected and would be sensible to be pursued in future studies.

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