NEWLY QUALIFYING TEACHERS' PERSPECTIVES OF DIVERSITY AND INCLUSION: *UNDERSTANDING THROUGH VISUAL REPRESENTATIONS*

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This research explores the use of visual imagery as a strategy for gaining a greater understanding of diversity and inclusion within regular schools as perceived from the perspective of 118 newly qualifying teachers in Hong Kong. Dyads or small groups of teachers participating in a teacher education course were asked to represent their understanding of the concept of inclusion within the local context by using a visual imagery approach. Analysis of 14 images identified a range of issues perceived by these participants as supportive and exclusive of the whole school approach to education being adopted locally. Discussion focuses on the use of visual imagery as an innovative and engaging way for preparing teachers for inclusive education.

Introduction

Teachers are pivotal to the education sector as they are the key personnel that have significant impact upon those they teach within a specific context of teaching and learning. Whether they are a kindergarten, primary, secondary school or even tertiary teachers, all teachers need to be adequately trained with skills that empower them to teach effectively. The teachers' role is, therefore important, as it impacts on all aspects of teaching and learning within a whole school approach to catering for diversity and inclusion (Forlin, 2010c). This particular role appears to be more demanding and stressful at the initial stage of a teacher's career since they have to understand a range of conceptual, pedagogical and contextual issues (Cope & Stephen, 2001). With rapid paradigm shifts in the philosophy of educating children, and a focus on establishing a whole schooling approach that enables all children to be educated within the same school, newly qualifying teachers often find themselves commencing their careers in inclusive schools that are unfamiliar to them (Forlin, 2010a).

The concept of whole schooling, within which teachers work, is the development of a school community that includes and involves all staff, students, parents and other stakeholders in every facet of school life (McGregor & Forlin, 2005). It does not exclude or discriminate against those with differing ability, ethnicity, gender or socio-economic position. The international move toward whole schooling is underpinned by the fortitude, passion and the optimistic attitude of all stakeholders involved (Peterson, 2004). In Hong Kong the approach that has been employed, is referred to as the Whole School Approach (WSA) to catering for diversity (Forlin & Rose, 2010), which has "… challenged the existing segregatist approach to education, the didactic teaching methodology employed by all teachers, and the beliefs of teachers about where children should be educated and their expected role in enabling inclusion" (Forlin, 2010a, p. 42).

The diversity of learners within regular classes as a consequence of the strong movement towards an inclusive approach, has resulted in teaching becoming more complex and the needs of newly qualifying teachers very wide-ranging (Florian, 2009). Preparing teachers to work in this new climate, thus, requires appropriate opportunities for reflection and discussion to enable them to explore their own beliefs, values, and understandings to ensure they are suitably prepared for their new roles (Sharma, 2010).

Preparing Inclusive Educators

The philosophy of inclusive education, whereby all children are educated within the same regular schools and classrooms that has been promoted internationally for the past two decades (UNESCO, 2010), is now generally becoming accepted as the way forward in the Asia-Pacific region (Forlin & Lian, 2008; Pang & Richey, 2006; Wu-Tien, Ashman, & Yong-Wook, 2008). Hence issues of diversity especially, become critical in the face of teaching and learning for new teachers in Hong Kong. A key aspect of preparing teachers for inclusive education is concerned with changing attitudes, beliefs, behavior and actions to ensure realistic understanding of the policy and positive attitudes towards supporting all learners (Sharma, Forlin, & Loreman, 2008).

In a teacher education context, it is common for educators to use alternative modes of teaching to facilitate teachers' understanding (Chambers & Forlin, 2010). This is especially needed in preparing teachers for diversity within inclusive schools. In recent years, a number of methods have surfaced as the alternative mode of preparing teachers for teaching and learning (Phillipson, 2007; Winter, 2006). While many of these have focused on the use of information technology such as the use of webpages, blogs (Goh, Quek, & Lee, 2010), dialogue journals (Bayat, 2010), video recordings and e-learning platforms (Park, Lee, & Cheong, 2008), and the use of portfolios (Donnelly, 2005) increasing interest has been shown in the use of visual representations for their creative and cognitive values (Thomson, 2008).

Using Visual Imagery

Various types of visual imagery have been employed to obtain perceptions from people regarding a range of issues (Rose, 2001). In particular, there has been an exponential growth in visual research in the past two decades (Prosser & Loxley, 2007). Although as acknowledged by Prosser and Loxley there is still "… a paucity of insightful exemplars of visual methodologies" (p. 56), earlier constraints regarding visual studies appear to be rapidly diminishing. A variety of applications of visual research have thus appeared in recent years. Participatory visual research designs have been adopted in a range of research studies, particularly in the social sciences (Packard, 2008). In the social sciences, visual methods include video, photography, and graphic representations to provide personal insights and a personal record of spatial and social relationships (Grady, 2008). For example, the use of photography founded in photojournalism has led to the application of Photovoice, which has provided an opportunity for people to develop their individual and societal identities. Such an approach has been found to be influential in building social competency and enabling people to provide meaningful insights into the needs of communities (retrieved from http://www.photovoice.com/abstracts/index.html). This kind of process brings a breadth and strength to the understanding of community concerns not generally possible with surveys or quantitative data. Further, it allows groups to speak out about their concerns, hopes and fears, and enables participants to be active individuals with views and opinions rather than passive partakers (Wang, Morrel-Samuels, Hutchison, Bell, & Pestronk, 2004). Through witnessing the daily challenges as they see them, it is possible to get closer to truly understanding the lives and needs of individuals and encourage others to reflect more seriously on these, thus helping to bring about change (Strack, Magill, & McDonagh, 2003).

The use of drawings in order to listen to the voice has also been accentuated in recent years, particularly as a medium of expression (Piper & Frankham, 2007), and as a strategy for constructing meaning in relation to a specific issue (Einarsdottir, Docket, & Perry, 2009). Artistic activities have also been used with teachers as a means of getting them to experience how they can include the arts into their own teaching (Cuero & Crim, 2008) and how art can be used in the assessment and evaluation of learning (Bustle, 2004). By visualizing ideas, it is possible to bring something much more clearly into consciousness (Brooks, 2009) and allow people to construct their own meaning though a metacognitive approach.

In order to develop teachers as critical reflective thinkers (Sharma, 2010), this requires a transformation of their way of knowing (Osterga, 2006). The choice of learning experiences to do this during their preparation for inclusion must take into account different styles of learning, and allow for teacher educators to differentiate tasks to accommodate these. The use of aesthetic representations for teachers has been found to enable them to connect with course content that " … is clearly a way to incorporate more analytical and critical thinking … while at the same time differentiating methodology, motivating all learners, and reducing the elements of failure" (Cuero & Crim, 2008, p. 119). Individual differences, though, and prior knowledge will determine the way that people can perceive and interpret visual representations (Cook, 2006).

Since the concept of inclusion has been the focus of so much debate internationally, particularly in relation to meeting the educational needs of children with disabilities, it is important to provide teachers with a personal opportunity to reflect on what the concept means to them while exploring their own beliefs and values that are likely to impact on their commitment to an inclusive teaching approach (Ainscow, 2003; Forlin, 2010b; Sharma, 2010). As schools are complex and comprise a wide range of interconnecting entities involving people, facilities and culture (Forlin, 2010b), teachers create their own unique interpretation of what is happening (Prosser & Loxley, 2007). Visual methods for appreciating the visual culture of schools draw upon a variety of perspectives including sociology, psychology, media and cultural geography and have been found to play a useful role in educational research (Prosser, 2007). The use of visual imagery provides means of supporting practitioners to analyze their experiences as a pre-requisite to introducing changes in educational practice (Forlin, 2009). Image-based reflection is progressively more being seen as one of the most promising ways in which participants are able to consider their existing understanding and experiences (e.g., Booth & Booth, 2003; Prosser, 2005, 2007).

To date, researchers have concluded that visual images contain many hidden facts and stories, beyond the immediately obvious (Ainscow, 2003). These can, therefore, be used to generate in depth debates and information sharing. Such debate facilitates the consideration of alternative ways that schools and classrooms can be re-organized to enable learning to be more inclusive. Existing practices that may pose barriers to access or learning and different options can be posited.
Capturing and conveying a photographic image of an inclusive classroom, or an inclusive society, is extremely difficult, though, since inclusion is concerned with equity, social justice and human rights (Ainscow, 2003). With a transition from reviewing and defining disability using a medical model approach to a social model of disability (Loreman, Deppler, & Harvey, 2010), it is important to seek to capture the real essence of inclusion from a more general standpoint. In particular, it is vital to consider this from the perspective of newly qualifying teachers, as they will be involved with implementing inclusive educational practices. The use of visual representation, thus, provides alternative and more direct perspectives to further enhance dialogue about inclusion and whole school approaches.

In endeavoring to understand the perceptions of newly qualifying teachers regarding this philosophy, rather than using photographic imagery, they were invited to produce visual representations of their conceptions of inclusion as means of promoting

reflection about the meaning of inclusive education to them as participants. In embarking in this project, we aimed to investigate the range of perspectives divulged by our teachers in understanding these issues within the teaching and learning process of courses set in teacher education programs in Hong Kong. The visual representations allowed for imaginative ways of presenting these important and sensitive issues in an authentic manner. This method also allowed for teachers to venture into unknown territory by initially drawing what they felt and thought, rather than speaking those feelings and thoughts (Cuero & Crim, 2008). It is especially crucial for new teachers to be able to express their feelings and beliefs that lead to the understanding of concepts in studying diversity and inclusion, as these practices are the foundation of the whole schooling approach and holistic child development promoted in Hong Kong (Curriculum Development Council, 2001).

Method

Participants
Three cohorts of Postgraduate Diploma of Education (PGDE) newly qualifying teachers from a teacher education institution in Hong Kong participated in this research. The three PGDE cohort comprised of 118 teachers who attended a course entitled "The Professional Teacher in the Classroom, School and Community" (hereafter referred to as the course). Two of the PGDE cohorts were full time teachers whereas one consisted of part time in-service teachers who were mostly newly appointed and working towards their formal qualification. Each of the three cohorts undertook the 30-hour course over a period of 10 weeks. While the same educator taught them, the sessions for cohorts were conducted separately. The course was taught in English though the majority of teachers had Cantonese as their native language. All the participants majored in a range of subject disciplines including Languages (English and Chinese), Mathematics, Sciences, Liberal Studies, Business, Information Technology, Physical Education, Music and Arts.

Course requirement
The course consisted of teaching and learning of concepts and issues of diversity that required a fundamental understanding of inclusive and whole schooling practices. In order to achieve this outcome, a visual representation approach was taken to scaffold teachers through the coursework materials. The participants were first asked to read at least three research articles or book chapters that concentrated on issues of diversity, whole school approaches or inclusive practices over a four week period. They were then asked to work in dyads or small groups so that they would have peer support throughout the exercise. These were able to divide the reading tasks and relate and discuss with each other their comprehension of their readings. In total, there were 55 pairs or groups of participants and five individuals who worked on this exercise.

To facilitate their comprehension of the readings, the task for the participants was to conceptualize their understanding through any sort of visual representations including drawings or concept maps. These visual representations were required to be completed on A3 size poster papers, at a minimum. A number of the drawings and concept maps were completed on A2 papers. The participants were instructed that their conceptualization should demonstrate an original piece of work that represented an issue of contention or interest regarding inclusive education in Hong Kong, which

rose from the readings. In addition to submitting their work, each group was given ten minutes to share their visual representation and describe their drawings or concept maps to the rest of the cohort. They were required to justify their choice of the issue of contention and describe it in relation to their visual image. The participants also handed in written notations of their interpretation of their conceptualization. Only the visual representations and written notations were used in the analysis conducted in this paper.

Data analysis
A total of 60 visual representations were analyzed in terms of the broader themes and the meaning they projected using coding conventions of visual research consistently found in recent literature (Yurtal & Artut, 2010). For example, coding conventions included the visual representations being analyzed in terms of their meaning without being influenced by the aesthetic values. The images were coded with the written notations provided by the teachers being employed to enable the identification of the themes. Thus analysis was based primarily on the participants' descriptions of the images.

As a first step, the data were grouped according to two predetermined categories related to (1) the whole school approach (administration, facilities, systems, resources etc) and (2) people (principals, teachers, students, parents and society). A total of 38 images were within the WSA category whilst 22 images fell within the people category. By employing Berkowitz's (1997) six key questions (see Table 1) for extracting trends and commonalities, each category was then analyzed to identify key features associated with the teachers' perceptions of inclusion as it related to the specific focus of WSA and people. Finally, a comparison across both categories was made to identify the major issues for teachers regarding inclusive education. From these data, implications for teacher preparation were drawn.

Table 1
Berkowitz's (1997) Key Questions for Extracting Trends and Commonalities

1. What common themes emerge in responses about specific topics? How do these patterns (or lack thereof) help to illuminate the broader study question(s)?
2. Are there deviations from these patterns? If so, are there any factors that might explain these deviations?
3. How are participants' environments or past experiences related to their behavior and attitudes?
4. What interesting stories emerge from the responses? How do they help illuminate the central study question(s)?
5. Do any of these patterns suggest that additional data may be needed? Do any of the central study questions need to be revised?
6. Are the patterns that emerge similar to the findings of other studies on the same topic? If not, what might explain these discrepancies?

Note. Adapted from pp. 70-71 of Berkowitz, S. (1997). Analysing qualitative data. In J. Fretchling & L. Sharpe (Eds.), *User friendly handbook for mixed methods evaluations* (pp. 69-84). Washington, DC: Diane Publishing Company.

Discussion

From the 60 images, 14 were selected for analysis here since they contained comprehensive conceptual representations. Of which, six were from the WSA

category and eight were from the people category. The remaining 46 were fairly simplistic representations that provided only limited data so, therefore, have not been included in this discussion.

Task interpretations
Initial analysis focused on the main approaches employed to complete the task. These related to two aspects that of using local culture and using a range of metaphors to illustrate their perceptions of inclusive education practice within Hong Kong.

Cultural perspectives
Three of the images that highlighted a WSA category utilized local cultural elements to explicate their conceptual perspectives. One image used a tasty soup as a means of visualizing integrated education in Hong Kong. The soup included students of diverse backgrounds and needs with parents and other external support agencies. The principal was represented as the chef whose role was considered as paramount in ensuring the success of cooking a tasty soup. In another image, a Chinese folk tale was employed to juxtapose current historical practices with current trends.

In the third image of a dragon boat race, according to the written notation submitted by the group, this "… depicts a sociocultural environment of schooling where teachers, parents and school have to work together for the betterment of the students' welfare and performance" (Figure 1). In this representation the river that is constantly changing and on the move, is conceived as Hong Kong's competitive education system, which comprises continuous reforms.

Figure 1. The Dragon Boat Race

The three dragon boats refer to public and private schools with rowers representing students from different backgrounds and teachers (who are balancing books on their heads) providing support. Ethnicity is further shown through the presence of flags lining the side of the riverbank. Teachers and students cooperate to help the principal in their quest to achieve a positive outcome in the dragon boat race, thus representing a collaborative schooling environment. The drummers in the boats are the principals who provide the effective leadership, which presents effective schooling. Principals who fail to synchronize their drumming will be unable to lead their team (i.e. school) effectively, resulting in a less conducive schooling environment in the face of strong currents of educational reforms.

Metaphors
Many of the images employed metaphors to explain teachers' perceptions of inclusive education. These ranged from using the sea, an aquarium or the prison to represent an enclosed environment within which the schooling occurs. Explanation of the environment highlighted the educational aspects of schooling particularly focusing on some of the challenges faced when establishing a whole school approach. Two of the images utilized the metaphor of the tree referring to the roots of the tree as the foundation for inclusive schooling and the quality of the fruits as the outcome depending upon the nourishment (i.e. support, resources etc) that was provided. Five of the images capitalized on a protective structure to represent the importance of providing appropriate support and nurturing for all within the school environment. For example, a mother bird protecting a nest, a principal caring for an aquarium, an air bubble surrounding a person under water, and a fairy playing a magic flute to protect the children around them.

Key Features
Subsequent analysis considered how inclusive education was conceptualized in the visual images. The data were sorted according to the two categories of the WSA and the people. Further analysis of these two categories identified the roles played by the community and the environment, and principals and teachers (Figure 2). From these images, it was further possible to identify a range of positive teacher competencies to support inclusion and the type of challenges that these teachers anticipated would be demanding for schools.
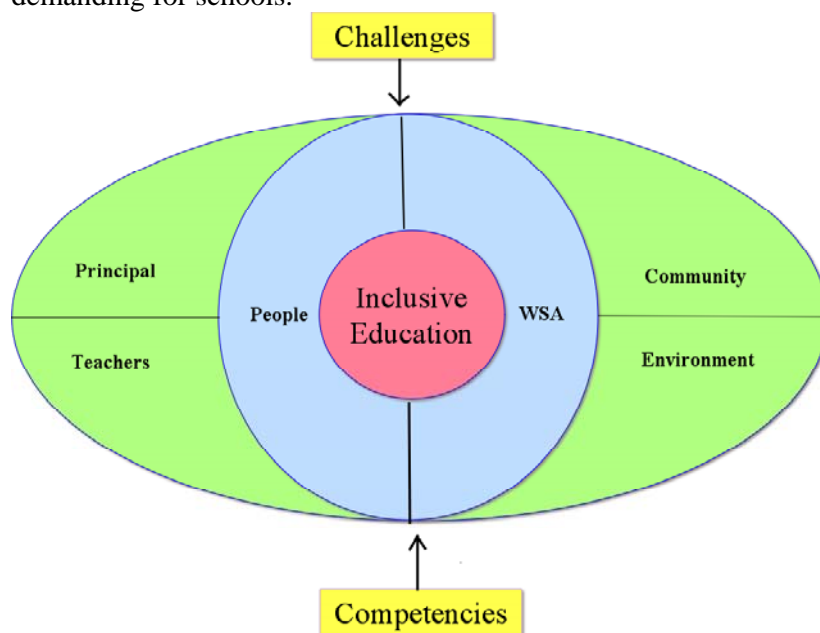

Figure 2. Key features of the data

Community
The diversity of the community within the whole school approach is portrayed in many of the images. It is clear that students are the central aspect of the whole school community with the diversity of their abilities and ethnicities being represented in a variety of ways, such as different faces, physical attributes, emotions or analogies (e.g. apples and chicks). The other aspect of the community is the cooperation and

collaboration between the principals, teachers, parents, students and school with images portraying the need for cohesiveness to enable success (for example, the dragon boat race and the tasty soup).


Figure 3. The flutist secret garden

A suitable example of the community feature is the flutist secret garden, which demonstrates the community aspect of the whole school approach (Figure 3). This secret garden is seen as a positive and conducive school environment for students of different capabilities and needs (e.g. some are flying and some are singing). The flutist is the teacher who is skilled in building good relationship with the students by meeting their needs and providing a safe and comfortable environment. The music notes are seen as the tools and skills that the teacher has embedded in the teaching and learning process. The crystal ball, reflecting on past practices, represents where students' talent and potential are not nurtured but rather constrained by negative student-teacher relationships.

Environment
Images that represented the environment focus on how the WSA could be enacted. Many of these refer to the importance of a harmonious relationship within the school or the classroom. Interactions are considered important between students and teachers where measures of positive reinforcements, psychological and social support, peer collaborations are perceived as paramount. The environment is portrayed as a place where students and teachers learn, grow and develop together, based on positive and consistent feedback to enable individual goals to be achieved. A successful school environment, for example, is represented by the image of the
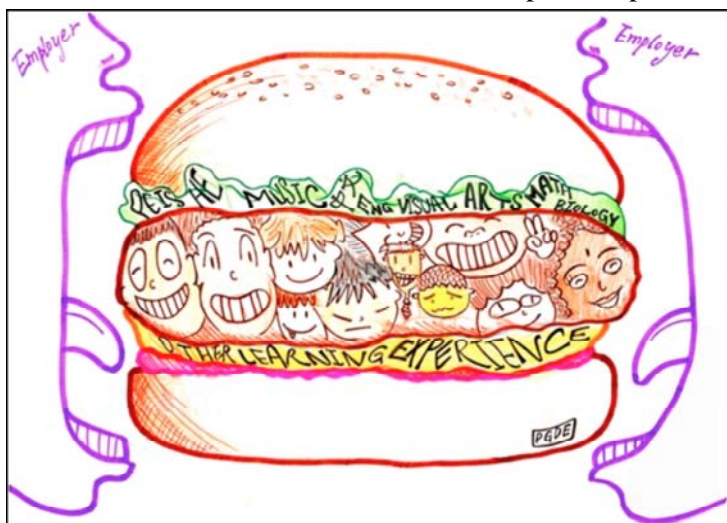
steps to success where different size footprints lead to an open school door where there stands a welcoming principal.

Figure 4. The hamburger

A specific example of the environment feature is the hamburger (Figure 4). The hamburger

represents an inclusive school within the Hong Kong context that caters for diverse students with different abilities and from different ethnic groups. The bread of the burger is the school building, which holds the fillings (meat, cheese, ketchup and salad). The meat represents the students and the condiments surrounding the meat, the subject knowledge and life skills that the students need to learn. The large open mouths on either side of the hamburger are future employers who are competing for the best students. While the diversity of the student population and the breadth of discipline areas is positive, the selection of the best students by employers is a negative outcome as this denies the same opportunities for those of lesser achievement and those of special needs.

Principal
Six of the images contain a role of the principal as a leader in the context of schooling. This role is usually depicted as a dominant position with the outcome being reliant on the input of the principal. The principal is seen as the overseer and facilitator of inclusive school whose role is critical to the success of the school. The drummer in the dragon boat race, the flutist in the secret garden and the mother hen protecting her nest, all utilize this concept of leadership.
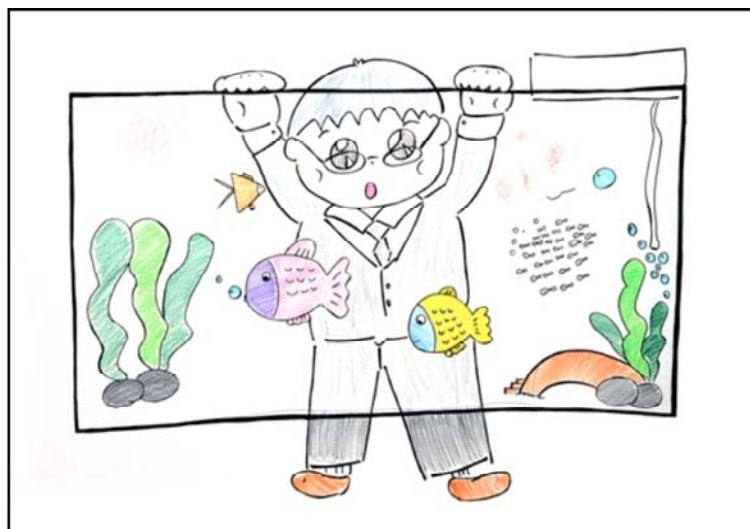

Figure 5. *The Aquarium*

One example is the aquarium, in which the principal is looking after the environment (i.e. the school) (Figure 5). The aquarium is seen as a safe and inclusive environment for an assortment of fish in which they can learn, grow and develop. The large fish in the aquarium represents the teachers who are looking after the welfare of the smaller fish (students). Without the appropriate feeding of the fish and maintenance of the aquarium, it would not be a healthy environment for the fish, thus demonstrating the important role of the principal in ensuring that the school is successful.

Teacher
The role of the teacher is implicated in six of the images, mostly through the use of an analogy such as the tree. Whereas some of the images portray the positive aspects of teaching in a WSA, others focus on the challenges that teachers face during their careers.

Figure 6. The teacher apple tree

A positive perspective is given by the teacher apple tree (Figure 6). The apple tree is used as an analogy to indicate the teacher's protective and nurturing role. The very strong roots of the tree personify the importance of having positive personal identities. The green pasture on which the tree stands is a rich soil that indicates the range of experience gained by the teacher that is considered crucial for the formation of their identity. The birds in the tree are metaphors for teachers' peers who provide collegial support for the teacher. The outcome of all the supportive elements, that is the tree producing big, juicy apples and green healthy leaves, is a personification of the realization of the teacher's goals and expectations. The strong and healthy tree provides protective shades against winds and typhoons to enable children to grow within its umbrella and by nurturing the development of their own tree of knowledge and life. The little plants surrounding the tree represent generations of new life that the teacher is nurturing.

Figure 7. The lady in the bubble

An example that focuses on the challenges of the teacher is the lady in the bubble (Figure 7). The lady in the bubble personifies the struggle that a teacher undergoes during their career span. The sea in which the lady is floating epitomizes the education professional environment that has many demands and threats with little respite. The bubble shows the limited air that the teacher has to breath under the water, thus indicating a feeling of being trapped under pressure by all that surrounds her. The seaweed represents the unstable ground and support that teachers have to stand on in order to be professional educators.

Competencies

An underlying key feature that is obvious from the data is the aspect of the importance of effective teacher competencies in supporting a positive WSA. Teachers who are competent are perceived as enthusiastic, nurturing, caring and supportive. These are depicted in the images using metaphors such as fire as the enthusiasm in teachers' pedagogy and the mother bird tending to her chicks. Similar competencies are also shown through the use of opposites such as bright vs. light and angel vs. devil, where the caring side of teachers is the bright and angel.

Another aspect of effective teacher competencies is demonstrated through those who encourage students by providing consistent and timely feedback. For instance, this competency is illustrated through the use of a board game where the alternate steps in the game are positive using terms such as 'good effort', 'keep trying', and the negative feedbacks are 'wrong', 'stupid' and 'fail'.

Motivation is also highlighted as an effective competency for teachers. This competency is illustrated, for example, in the image of the flutist secret garden where the environment is seen as motivating (Figure 3) and the image of the athletes (Figure 8). In the latter image, students with different learning needs are participating in a hurdles race. Every child is aiming to finish their own race by crossing a number of different hurdles to reach their desired goals. Standing on the sideline are all the teachers and their assistants. The teachers and their assistants are being supportive and encouraging by using intrinsic and extrinsic motivation shown through a bamboo stick hanging rewards over the track (e.g., verbal rewards, tangible reward, love, concern, social caring and technical support), and by the waving of flags.

Figure 8. The athletes

Being able to collaborate is also seen as essential for implementing inclusion in Hong Kong. This is represented in images that show the involvement of a variety of people in the tasty soup, the dragon boat race (Figure 1) and the hurdle race (Figure 8).

Challenges

The overarching issues seen as challenges to developing an effective WSA include several different concepts. These revolve around the major challenges that teachers perceive are associated with establishing and maintaining an effective school. The number of continuous rapid reforms in education and the resulting constant change pose many demands on teachers, principals and students. These are seen as leading to potentially demoralizing situations where teachers and students feel trapped by the environmental pressures. Such ideas involve images like the fast flowing current in

the dragon boat race as constant change in schools (Figure 1); the crystal ball indicating past practices of the traditional Chinese culture, which impact on supporting new reforms (Figure 3); and the sharks surrounding the lady in the bubble personifying the struggles and threats that teachers have to cope with (Figure 7). The representation of a school in Hong Kong as a prison indicates the entrapment of students within a monotonous and tedious system. A cell window with a bright outlook represents a contrasting outside world where the students look forward to after finishing their education.

A further challenge is conceived as the competitiveness within the Hong Kong education system and the difficulties faced by the students with diverse learning needs who are unable to compete. The employers waiting to eat the hamburger demonstrate this competitiveness and the difficulties faced by children with special needs and lesser ability in obtaining employment (Figure 4).

Potential barriers to inclusion are displayed using a variety of different images (hurdles, under water environment, strong current, typhoon, shackles) to indicate the challenges associated with developing effectual whole schooling. In most instances, the barriers are portrayed as immovable and that in order to achieve they have to be overcome rather than be removed. The cultural mindset of the beliefs of parents that do not understand the perspectives of children with special educational needs is exhibited as hurdles in the race towards achievement and progress (Figure 8).

Using visual imageries to understand inclusion
Analogous to the findings of Cuero and Crim (2008), who used aesthetic representations with pre-service teachers to explore their understanding of literacy; using visual imagery in this research to encourage newly qualifying teachers to explain their conceptions of inclusion enabled much greater depth of understanding. Similarly, this also modeled the importance of fostering creative and critical thinking, motivating teachers, and encouraging them to adopt a variety of learning styles into their own work (Sharma, 2010). The method was particularly pertinent as means for teachers to translate their understanding of the international concept of inclusion within the Hong Kong context (Forlin, 2010c).

The use of innovative projects for engaging teachers in their learning in preparation for inclusion has led to a plethora of pioneering ideas (Forlin, 2010b). Participatory visual research designs employed in the social sciences (Packard, 2008) have previously provided personal insights and perceptions regarding spatial and social relationships (Grady, 2008). The application of visual imagery as a further innovation for conceptualizing a difficult notion such as inclusion seems to have a lot of merit. The use of creative expressive arts has been employed in counseling for many years (Kennedy, 2008) as a therapeutic and non-threatening way for people to express their beliefs and experiences.

In working with newly qualifying teachers, it appears to have the potential to act in a mediating role between an understanding of concepts and the visualization of ideas they represent by externalizing it without the stress associated with writing a term paper. Using a visual image as discourse requires a much greater understanding of the concept than would be necessary for a written paper. However, by combining both use of visual imagery together with a written interpretation by the participants,

the potential gap identified by Prosser and Loxley (2007) between these two methods is minimized. This approach allows teachers to reflect upon a difficult concept and identify how they could connect it to their own local experiences in their own socio-cultural context (Sharma, 2010). It also challenges teachers to think about their readings, reflect upon their own value systems, beliefs, and expectations regarding inclusion. Further, they have full control over how they choose to represent their understanding of the concept and the illustrative style they employ.

From the conceptualizations, the teachers in this study were able to demonstrate a fundamental comprehension of the people involved in the WSA within the Hong Kong context. By creating and producing the images, they became aware of their own dominant role, parallel to other key figures such as the students, parents, principals and their colleagues at school (Forlin & Rose, 2010; Peterson, 2004). This awareness is crucial in their initial formation and development of who they are as teachers and who they have to work with in order to make inclusion succeed within the whole schooling perspective, and is particularly pertinent for newly qualifying teachers (Cope & Stephen, 2001; Florian, 2009). The images portray people as the integral part of the community, the environment, and that the competencies that teachers have to acquire is vital in meeting the challenges posed by the implementation of whole schooling practices as espoused by Forlin (2010b). Most of all, the images emphasize the teacher as the central figure to understanding and practicing the whole school perspective.

According to these teachers, success of a WSA is dependent upon the cohesion of the relationship between teachers and principals with the community and environment within the whole schooling practices. This element was discussed by McGregor and Forlin (2005) who stressed the importance of a good working relationship between all stakeholders within an inclusive practice. Similarly, this study's teachers deem a principal, who leads and nurtures the teachers in their endeavor to forge and establish strong ties with the community and the environment, as important. Such a principal is crucial in accepting the way forward in the environment of whole schooling policy implementation and practices. Specifically, the teachers tend to suggest that such a principal needs to embrace inclusion in order to role model inclusive practices to them and the wider community that includes parents. Almost all the images produced by the teachers have these issues cutting across them implicitly or explicitly.
With the support from the principal, the teachers would be able to brace themselves to face potential barriers that are brought about by the cultural context and other related challenges. The challenges that face these teachers come in many forms and especially of note is one that arises from the cultural mindset of the people within the whole schooling practice. This cultural mindset seems to be associated with various demands and threats not only to teachers but also to students within the whole school (Phillipson, 2007). It was noted by Phillipson that Hong Kong parents sometimes tend to shun the exercise of having children with special educational needs in the same class as other mainstream children, as they are afraid that their own children would be dragged behind in such a system. In a competitive environment like Hong Kong, this fear is very real. The teachers in our study implied this fear in their conceptualization in the competitive nature of the education system that exists currently. Both the dragon boat race and the hurdle race show this competitiveness. This realization is important for these newly qualifying teachers not only to prepare themselves for their own well being but also in order to identify issues that may arise

for their students (Rose & Howley, 2007).

Amidst all these challenges, the teachers note that they have to equip themselves with adequate and appropriate competencies both to solicit support from parents and the larger society, and to provide suitable education and care for their students. They highlight the need to be nurturing and caring, to establish good student-teacher relationships by providing timely and consistent feedback and motivation. From the images, we recognize that the teachers could achieve these goals by collaborating with other teachers, principals and parents. They also suggest that they could get help from their own students who are capable of providing peer support. The positive outlook that accompanies these feelings and thoughts shows the motivation of the newly qualifying teachers in their attempt in understanding the issues related to diversity and inclusion. This motivation is imperative for the teachers to face the many challenges that they realize come with the presence of diversity and the practice of inclusion within whole schooling (Ainscow, 2003; Forlin, 2010b; Sharma, 2010).

Conclusion

Employing a participatory visual research design to analyze newly qualifying teachers' perspectives of diversity and inclusion, has provided an alternative methodology to traditional approaches. This has posed a significant challenge in being able to develop "… the capacity to be sufficiently flexible, creative and critical in order to bridge the gap between visual approaches and orthodox word-based/number-based approaches" (Prosser & Loxley, 2007, p. 56). By utilizing a procedure that focuses on the analysis of participants' own written texts as descriptors of their visual images, this potential gap is minimized. As evident in this study, we conclude that using visual representations as an alternative mode of teaching newly qualifying teachers to understand issues related to diversity and inclusion can be both productive and constructive. We note that interpretation of visual images involving researchers in drawing conclusions has to be treated with caution. In this research, using the written texts provided by the participants as the key data limited the potential misrepresentations that might occur.

The conceptualization of elements of diversity and inclusion through participatory visual research allows the newly qualifying teachers to have a greater understanding of the pertinent issues at hand, whilst displaying both creativity and critical thinking. The use of visual representations facilitates teachers to have an active voice in sharing their understanding and concerns, hopes and fears, and in delineating their own identity as whole schooling teachers.

Acknowledgements

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