

Hong Kong student teachers' beliefs about children's learning: Influences of a cross-cultural early childhood teaching experience

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ABSTRACT

Twenty-one in-service early childhood students participated in a teaching practicum in Australia as part of the final year of a Bachelor of Arts in Hong Kong. Students spent two weeks visiting a university and early childhood settings in Australia. The university based component of the program included workshops and discussions with lecturing staff located in both the Australian and Hong Kong universities. Students were asked to complete written statements about "What is children's learning?" before and after their practicum experience. An inductive analysis of students' written statements and practicum evaluations revealed an increase in beliefs about children's learning as "active understanding" over the two-week period. Implications for teacher education programs are discussed.

INTRODUCTON

The Hong Kong education system is currently experiencing reforms that aim to engage learners in constructivist learning practices (independent learning, problem solving, and critical thinking). In recent years, the concept of constructivist learning has also gained prominence in the professional training of early childhood educators in Hong Kong. More emphasis is being placed on promoting meaningful learning experiences for young children through direct experience and discovery.

In order to realise such goals, it is important to consider teachers' conceptions of learning (Watkins, 2004) because such beliefs influence learning processes and professional outcomes (see Biggs, 1993). This paper

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reports on Hong Kong students' beliefs about children's learning before and after completing an intensive early childhood practicum in Australia. The categories of beliefs about children's learning that were derived from analysis of written statements about learning and evaluations of the experience were similar to phenomenographic conceptions of learning. In this paper, these beliefs are not described as conceptions of learning as is typical in phenomenographic research. The analysis was completed from individual teacher's responses rather than using pooled interview data, as is the case in phenomenographic conceptions (Svensson, 1997). However, the conceptions of learning literature does provide a rich source of thinking about beliefs about learning and provides a platform for this study.

Conceptions of learning research

Conceptions of learning will determine the extent to which individuals derive meaning from learning experiences (Biggs, 1993; Hammer, 1994). In the 1970s, Marton and Säljö (1976) found that students who engaged with learning tasks in a superficial way such as rote learning, held reproductive beliefs about learning. These quantitative beliefs about learning fostered surface approaches to learning with little reflection on the process of learning. When students believed learning was a meaning making process, or held qualitative conceptions, they were more likely to engage in deep processing of learning (Haggis, 1993, Marton & Säljö, 1976) and actively construct knowledge.

In further research, Marton Dall'Alba and Beatty (1993) found that Social Science students at the Open University in Britain viewed the nature of learning in six qualitatively different ways. The conceptions included (a) Increasing one's knowledge, (b) Memorising and reproducing, (c) Applying (e.g., algorithms), (d) Understanding, (e) Seeing something in a different way, and (f) Changing as a person. The first 3 conceptions involve the quantitative or reproductive belief that learning involves the acquisition of knowledge without any transformation of the information to develop understanding. When students hold quantitative beliefs about learning, they are more likely to perceive that they need to acquire facts. The qualitative conceptions (d), (e) and (f) involve learning as a process of active knowledge construction by the individual to extract meaning from the learning task. It is possible that individuals with such sophisticated conceptions may acknowledge that reproductive perspectives may also play a role in learning, although the overall focus is on qualitative perspectives of learning.

Cross-cultural conceptions of learning

Somewhat similar conceptions of learning have been found in cross cultural accounts of students' learning beliefs. Such conceptions may be described as cultural models that influence among other things, an individual's beliefs and practices related to learning (Li, 2003). Watkins and Akande (1994) investigated Nigerian high school students' conceptions of learning. They described conceptions of learning as an increase in knowledge, memorising and reproducing, applying, and understanding (although the exact nature of this understanding was not always clear). These are similar to the first four conceptions described by Marton et al. (1993). Boulton-Lewis, Wilss, and Lewis (2001) investigated the conceptions of learning held by Aboriginal higher education students in Australia and noted some conceptions similar to those described by Marton et al (1993).

Research on conceptions of learning has also taken place in the Asian context. The Asian learner is often described as one of being a passive learner or one that is reliant on rote learning without understanding the material (Purdie, 1996). However much research disputes this stereotype. Purdie et al. noted that Japanese students reported fewer conceptions of learning as reproduction in comparison with Australian students. Other research related to the Asian learner suggests that students engage in a process of memorising material to be learned but do so with a clear understanding of the material to be memorised (Haggis, 2003; Watkins and Biggs, 2001 in Watkins, 2004; Marton, Dall'Alba & Tse 1993 in Purdie, 1996). This is commonly described as the "Chinese Learner" paradox (Watkins & Biggs, 1996 in Sachs, 2003, p.182). That is, often such learners excel in science and mathematics (by international standards) and yet they are often described as passive learners. Marton, Dall'Alba and Tse (1996 in Sachs, 2003) believe that the memorising for understanding conception of learning explains this paradox. For Asian learners memorisation is associated

with understanding not rote learning. This conception was further supported in research by Dahlin and Watkins (2000 in Sachs, 2003) by contrasting German and Chinese secondary students' conceptions of learning. However, Dahlin and Watkins indicate that the memorisation for understanding conception is likely to be context specific and not necessarily an essential feature of the Chinese learner. This means that regardless of ethnicity, any student may develop such a conception of learning if the learning context demands it (e.g., an emphasis on examination assessment).

Conceptions of learning in early childhood.

While there is a substantial literature related to conceptions of learning, there has been very little research that has investigated early childhood teachers' conceptions of learning, specifically their beliefs about children's learning. McLean (2001) argued that beliefs about learning (in particular the "how" or process of learning) will influence teachers' professional experiences and practices. In the context of early childhood education and care, McLean's assertions suggest that these general beliefs about learning influences ones' beliefs and practice in relation to children's learning, or one's professional practice. Very little research describing caregivers' beliefs about children's learning exists. Berthelsen and Brownlee (2005) described 4 categories of children's learning espoused by long day care providers:

- Children learn as observers in social settings (children watch and listen);
- Children learn through engagement in social settings (children are active in learning);
- Children learn as collaborators (children collaborate with teachers and peers in order to learn);
- Children as autonomous learners (children initiate their own learning experiences).

These 4 categories reflect a continuum of agency from passive observation through to more active participation in the process of meaning making. In many ways these categories resemble the conceptions of learning described by Marton et al., (1993) in which the quantitative conceptions also reflected a passive aggregation of facts through to an active process of developing meaning in the qualitative conceptions. The aim of the current study is to investigate the nature of and changes in Hong Kong early childhood student teachers' beliefs about children's learning as a result of participating in an international observation practicum in Australia.

METHOD

Twenty-one early childhood student teachers elected to participate in an overseas observation practicum experience in the final year of a Bachelor of Arts (pre-primary education) program at a university in Hong Kong. The student teachers were all female and ranged in age from 24 to 48 years old. (11 between 24 – 29 years, 5 between 30 – 39 years, 5 above 40 years). They had been working in the field for between 3 and 25 years (11 between 3 – 9 years, 6 between 10 – 19 years, 4 over 20 years). Fourteen participants were early childhood teachers, and 7 were early childhood centre supervisors.

The observation practicum was hosted by a large metropolitan university in Australia. The School of Early Childhood at this university has strong teacher education connections with early childhood training providers in both Singapore and Hong Kong. Student teachers spent a total of two weeks visiting the university and a range of early childhood settings in the metropolitan area. These settings included long day care, state preschool and community kindergartens. The university based component of the program included workshops and discussions with a range of lecturing staff located in both the Australian and Hong Kong universities. Students experienced a total of 15 (2.5 hours x 6 visits) hours of direct contact with centres and 19 hours of workshops, practicum debriefing, and supervision by Australian and Hong Kong university staff. Observation visits offered the students first hand encounters with how the Australian play based curriculum is carried out in practice. Due to the contrast with their own experiences, this opportunity helped them to initiate reflection on their own practice. In the debriefing and supervision sessions, the lecturers facilitated and furthered their reflections through abstracting their observations to a more conceptual level. The learning objectives of the practicum experience were:

1. To compare Hong Kong and Australian mainstream preschool settings and programs and
2. To analyze social and cultural factors impacting on program delivery in the two educational settings.

To achieve the learning objectives, students were expected to write 6 reflective journals during the two weeks. These journals were not available for analysis because of their personal nature. Furthermore, they had to complete a comparative analysis on an identified topic of interest based on observations from the Australian and Hong Kong settings. Some of the examples of the topics were “How does the learning environment facilitate children’s autonomy?”, “What is the teacher’s role in stimulating children’s creativity through visual art?”, “Compare teachers’ roles in supporting children’s play in two different preschool settings”. Four sessions of pre-placement workshops were conducted in Hong Kong to prepare the students for the practicum. The workshop topics included (a) introduction to the objectives and the expectations of the practicum, (b) a brief introduction to comparative study, (c) constructive attitudes in doing comparative projects, and (d) background information on early childhood education and care (ECEC) in Australia.

Gathering and analysing data

Students were asked to describe their beliefs about children’s learning at the beginning (Time 1) and at the end (Time 2) of the practicum. The Australian lecturer asked them to respond to the question “What is children’s learning?” at both times and at then Time 2 they were asked also to describe why they thought any changes may have taken place. In addition, they were asked to evaluate the practicum experience: “Do you feel this practicum visit has been a valuable professional activity for you? Why? What have you gained professionally from your participation in the activities?”

The Hong Kong staff member responsible for preparing and leading the practicum wrote journal reflections on her perceptions of how students’ beliefs about children’s learning changed during the practicum. The lecturer had many opportunities to interact privately with students during debriefing sessions. This proved to be a valuable experience because it enabled students to express their beliefs about the early childhood practices they were witnessing during the practicum. The Hong Kong lecturer’s reflections were used to triangulate with the written statements and evaluations, thus ensuring that the written statements and evaluations were an authentic report of their beliefs rather than espousing knowledge for the benefit of the Australian lecturer.

Responses were analysed using an inductive approach. This meant that while a complete grounded theory analysis did not take place, a constant comparison method of analysis was used to allow the comparison of incidents with incidents, incidents with categories and finally categories with categories (Creswell, 2005). Written responses were edited for readability.

DISCUSSION of FINDINGS

The categories of beliefs about children’s learning that were derived from analysis of written statements about learning and evaluations of the experience are now discussed.

Beliefs about children’s learning

Students described a range of beliefs about children’s learning when asked “What is children’s learning?” These categories included learning as ‘aggregation’, ‘active discovery’, and ‘active understanding’. Table 1 is summary of the categories that emerged in relation to beliefs about children’s learning in the written statements.

Aggregation

This category, referred to as “aggregation”, related to the acquisition of academic knowledge or facts. Often when asked what learning was students simply replied that children learn in all areas of development such as cognitive, social, emotional, and physical.

Cognitive ability also belongs to children learning, physical development in both gross and fine and motor is children's learning areas. Aesthetic development is one of the children's learning area. Through aesthetic development, the creativity of children can be developed. (02³: Time 1)

Students also noted that children learnt by observing others.

Children learn by observation and questioning each other (09: Time 1)
They learn by modelling others through play. (01: Time 2)

Berthelsen and Brownlee (2005) also reported that caregivers described children's learning as observation. This is a conception that needs more attention because it does not always mean observation that is passive or ineffective in nature and may be culturally appropriate. Watkins (2004) suggests that conceptions of learning that relate to observing or listening to the student may be the result of being "learner-trained" (p.370). This means that Chinese children are trained to listen carefully. Because of this, children can be very successful learners even in large classes (Watkins, 2004). Rogoff et al. (2004) described a similar form of observation learning by young children as 'intent participation'. This type of observation is characterised as more than passive observation because children are observing and modelling with an intention to participate in mature activities. Fler (2002 in Edwards, 2003) explained how a focus on active learning may not be important for indigenous Australian children and that observing without adult explanation is a valued learning experience for such children.

All of the students in this study made some comment about children learning as involving some form of increased knowledge at Time 1. This is not surprising because Hong Kong early childhood programs place a strong emphasis on formal academic tasks. However, by the end of the practicum only eight students still described children's learning as acquisition and modelling only.

Active Discovery

The next category of beliefs was described as "active discovery" and referred to children learning through exploration, discovery, doing, experiences, and daily life interactions. This category reflected the notion that children are guided rather than directed as demonstrated in the following quotes.

Play base curriculum can encourage children to learn. Children are active learners. The learning environment can enhance children's learning experience. The teacher's role is a provider, facilitator and educator. (10: Time 2)

Children learn from their experience. They learn from operating on materials that the teachers provide and they learn from interacting with the environment, including the teachers, peers, materials, etc. (01: Time 2)

The notion of children having agency was also evident in this category and referred to beliefs that learning involves allowing children choices.

In the last 2 weeks, I observed that children enjoy playing. Children initiated the exploration of the environment. They learned knowledge through hands on experiences and used verbal language to communicate with others. (12: Time 2)

Students also described the notion of respect for children, which involved trusting in children's competence as learners.

³ "02" refers to the student identification number
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Over the last 2 weeks we have opened our mind to understand different teaching approaches, such as how to respect children, and understand individual ability, not only being concerned about how much knowledge children learn. (07: Time 2)

This category is similar to Berthelsen and Brownlee's (2005) 'learning through engagement' where children are active in the learning process. Over the course of the practicum, students espoused an increase in views that children learn through active involvement ($n=9$ Time 1, $n=34$ Time 2). However, while students acknowledged the role of active learning, there was no clear indication that the learning taking place was constructivist or qualitative in nature. The next category of learning indicates a clear focus on children being active but also making meaning in such active learning experiences.

Table 1. Summary of comments about children's learning at Time 1 and Time 2.

Children's learning as ...	Time 1	Time 2
Aggregation	4	5
increased knowledge related to aspects of development (children learn in areas of development such as cognitive, social, emotional, physical) observation	16	2
	1	1
Total	21	8
Active Discovery	3	5
exploration/active discovery /learn by doing through experiences and daily life interactions	2	6
guided rather than directed	2	5
agency	--	6
respect / trust children to learn on their own	2	6
	--	6
Total	9	34
Active Understanding	1	3
Processing	7	11
Total	8	14

Active Understanding

The category "active understanding" is a description of children's learning as a process of making meaning of various learning experiences.

Learning is through play, peer interaction, exploration of the environment and observation. I can see children learn more by playing because it's their interest. When something arouses their curiosity they can pay attention and observe, collect information, solve problems and construct their own knowledge. (09: Time 2)

Children's learning was also referred to as process-oriented rather than outcome focussed, which involved active problem solving, creativity, and the notion of learning to learn.

The most important part of learning is the process. The teacher provides opportunities for children. Children try to work things out and try out their thinking through the process. They may need different problems, and they use their own methods to solve them, and develop their problem-solving skills. (01: Time 1)

Children can develop their creativity through the environment and teacher stimulation because the environment is similar to their life experience. (17: Time 1)

This category of learning is similar to Marton's et al. fourth conception, "understanding" which focuses on active construction of meaning. Both categories "active discovery" and "active understanding" had a focus on the child having agency in the process of learning however, the latter clearly described active construction of meaning and a focus on processing information.

Changes in beliefs about children's learning

Changes in students' beliefs about children's learning were evident in the Time 1 and 2 written statements, students' evaluations of the practicum experience, and the Hong Kong supervising lecturer's journal reflections. Each of these will be discussed in turn.

Time 1 and 2 written statements

The categories of beliefs that emerged in Time 1 and Time 2 are summarised in Table 1. Over the course of the practicum more comments were made about learning as "active understanding" ($n=8$ Time 1; $n=14$ Time 2). Correspondingly there was a notable decline in the number of comments related to learning as "aggregation" ($n=21$ Time 1; $n=8$ Time 2). Further, there was an increase in the number of statements about how children's learning was related to "active discovery" ($n=9$ Time 1; $n=34$ Time 2). These changes indicate that there was an increased focus on qualitative rather than quantitative beliefs about children's learning.

Students' evaluations of the practicum experience

How students evaluated the practicum in relation to professional learning also reveals information about changes in beliefs. Students acknowledged in their evaluations of the practicum experience that the most significant change in their learning related to their increased knowledge about the value of play. Table 2 provides a summary of these comments.

Children learn how to play in their early childhood. In their playing they gain lots of life experiences that they cannot learn from teachers and books (such as social skill, self awareness...). It is the critical period for children to prepare for further learning. So, I think that it is not important for child to learn how to spell the words, how to use different kind of tools or material. The most important thing is that they can enjoy and participate in their play. (3: Time 2)

Play is commonly viewed as an intrinsically motivated, child-initiated activity which promotes active and meaningful learning. Students' increased understanding of the role of play in learning is significant because it supports the development of "active understanding" as a conception of children's learning throughout the Time 1 and 2 written statements.

Table 2. Students' evaluations of the practicum.

Students believed that the practicum increased their...	<i>N</i>
knowledge about the value of play for learning	18
focus on children's interests	2
understanding of the need to respect children	5
understanding of the need for children to experience independence in learning	3
understanding of learning as a process of construction of knowledge	2
understanding of cultural differences in early childhood education	4
ability to reflect / be open minded about different approaches to early childhood	3
knowledge overall	1
understanding that beliefs influence practice	1

Hong Kong supervising lecturer's journal reflections

The Hong Kong supervising lecturer's journal reflections were also examined to investigate her perceptions of changes in students' beliefs about learning. She observed overall differences related to the students' views on various early childhood issues throughout the course of the practicum. These journal reflections were based on the discussions she held in the two sessions of group supervision, held on Thursdays of each week, after the 1st and 2nd rounds of visits to centres. The purpose of the group supervision was to identify common issues/questions which might have risen from the visits and to begin to identify the influence of possible factors behind the differences observed in practice. These sessions also invited students to reflect honestly on their experiences without the Australian lecturer being present.

The Hong Kong lecturer noticed that in the first week of group supervision, "the students were struggling with questions about the play-based curriculum – how it was put into practice, the teacher's role, how and what children learn". She reflected that this was probably due to "the contrast in the preschool settings they observed in Australia as compared to their own experiences. The questions raised/comments made were more on the surface level and there was a certain uneasiness or confusion in them". Some examples of the students' questions/comments were:

- (a) The differences in children's behaviors were due to physical space – the Australian classrooms are very spacious with large outdoor spaces.
- (b) The teachers' style of supervising children was rather laissez-faire. The Hong Kong students could not understand why the Australian teachers did not seem to intervene when they engaged in risky physical acts/conflicts and did not seem to be worried about issues of children's safety/hygiene. In Hong Kong the students had reflected on how they would intervene immediately if they observed children engaging in any potentially "dangerous" physical acts or social conflicts. They were concerned about classroom management issues.
- (c) The students observed many activities going on in the classroom, but were distressed about the lack of a "curriculum" and could not determine what the teacher's role was in the classroom. They had difficulty connecting with their own experience of a rather structured curriculum where teachers play a relatively directive role in guiding children's learning with more emphasis on knowledge and writing and reading skills.
- (d) The students also tended to focus their attention on individual teacher's actions or management style and discussions were focused on scattered scenarios of children's interaction or teacher-child interaction.

In the second week of group supervision, the Hong Kong lecturer noted that the tone of their discussions was quite different. "The teachers were appreciative, felt less distant and could relate more to the play-based approach". They commented that they could see "order in the chaos". When they observed the advanced level of children's behaviors (e.g., extended period of concentration in a piece of work, children's behavior being purposeful, low levels of classroom management issues, willingness to tidy up, advanced communication skills), they began to question what made this possible. They began to recognize the teacher's role behind the "order", connecting to core issues of respect for children's choice and trust in children's abilities. Specifically the following occurred:

- (a) They did not focus anymore on individual teacher's techniques/management skills, but were able to abstract to the importance of teacher's beliefs, for example the importance of teachers' attitudes toward children. They questioned why they worked equally hard but were less effective in promoting a learning environment that was harmonious. They came to realize the importance to teacher's trust in children's competence.
- (b) They witnessed the actual practice of child-centered approach of following and responding to children's leads and interests rather than a pre-planned and structured curriculum. Their doubt about whether children can really learn through play was alleviated. It appeared that their view of learning had broadened to focusing more on the process than on the outcome.
- (c) They understood more about how the play-based approach worked and were able to leave aside their own perceptions of how a curriculum should appear. They recognized the effectiveness

of the play-based approach, for example, children's longer attention span, teacher spending less time on behavior management.

(d) They were able to provide a different interpretation to the same situation. For example, in the first week they attributed less social conflict in the classroom to the availability of more toys and physical space, but by the second week they attributed it to cooperation among children and the teacher's role in building such relationships.

From the above description, the students seem to have experienced changes in their views about beliefs/values and practice which parallel those noted in their written statements. This provided a source of triangulation for the data analysis. That is, there was an increased focus on active construction of meaning ("active understanding") and a decrease in beliefs that learning for children is passive ("aggregation") over the course of the practicum. The lecturer speculated that aspects of the practicum including direct classroom observations of actual practice coupled with guided observation and answering questions during the visits were most useful (e.g., a Hong Kong student mentioned how the Australian university lecturer pointed out a teacher promoting problem-solving ability in discussions during circle time). According to the Hong Kong lecturer, debriefing sessions and group supervisions also helped the students to clarify confusions and to generalize to a more abstract level of understanding.

IMPLICATIONS

Three main categories of beliefs about children's learning were derived from Hong Kong early childhood students' written statements about learning; namely, 'aggregation', 'active discovery' and 'active understanding'. In many ways these categories resemble the conceptions of learning described by Marton et al., (1993) and Berthelsen and Brownlee (2005) in which a continuum from passive aggregation of facts through to an active process of developing meaning is evident. It is important to focus on early childhood students' beliefs about children's learning because these may influence effective professional practice (cf McLean, 2001). Indeed, constructivist beliefs about knowing and learning (personal epistemology) have been linked to child-centred pedagogy (Arredondo & Rucinski, 1996). Brownlee and Berthelsen (2004) also noted that caregivers with constructivist beliefs about knowing and learning also demonstrated constructivist practices with toddlers in long day care centres.

Over the course of the practicum experience, students described changes in their beliefs about children's learning with more constructivist (active understanding) and fewer passive beliefs (aggregation) emerging over the two week practicum. Most of the students ($n=18$) believed that participation in the practicum and debriefing workshops had helped them to develop an increased understanding of the role of play in early childhood as compared with formal academic tasks. Reybold's (2002) study of Malaysian women indicated that their cross cultural experiences in an overseas practicum caused a re-negotiation of beliefs about knowing and learning. Boulton –Lewis et al. (2001) indicated that changes in conceptions of learning are likely to emerge as a result of educational experiences. Dart et al., (2000) also suggested that in order to develop qualitative conceptions of learning, educational experience is important. That is, qualitative conceptions must be explicitly reflected on in courses and also reflected in the teaching evident in such courses. Qian and Alvermann (2000) also acknowledged that explicit reflection on beliefs about knowing and learning may be necessary to assist conceptual change in students.

The practicum and university based experiences have provided the Hong Kong students with an intense cross-cultural educational experience that has required them to explicitly reflect on their beliefs about children's learning through workshops and interactions with Australian university lecturers and early childhood teachers. This reflection took place through the structured journal tasks and the debriefing sessions held. It is important that existing early childhood courses help students to explore their beliefs about children's learning and the influences these have on their practice. This research has provided important information about the nature of early childhood students' beliefs about children's learning which can be used with other students to explore and become more consciously aware of their own beliefs systems.

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Biographical details

Dr Brownlee's research investigates early childhood professionals' personal epistemology and the impact of such beliefs about knowing, learning and teaching on early childhood practice. This line of research has also been extended recently to include child care centre directors and how leadership styles are impacted by epistemological beliefs. This research is important because there are substantial implications for such beliefs on caregivers' practice, and subsequent quality, in long day care.

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