

The Impact of Continuing Professional Development on a Novice Teacher

Abstract

Continuing professional development (CPD) for teachers must be situated within the context of the teachers' practice and be relevant to their teaching and learning needs. A CPD project was conducted in a Hong Kong kindergarten class. For five years, the class had used a mixed-curriculum of project approach topics and thematic units. The novice teachers, however, repeatedly expressed their concerns regarding the project works, including their lack of control over its project direction. The author (the school consultant) offered to conduct a school-based CPD project at the kindergarten in order to enhance the teachers' professional development the project approach. This paper tracks a novice teacher's professional growth and development through her experience in a CPD project. Specially, the paper discusses how the project involving kindergarten children have evolved in their classroom, as well as the reflections of a novice teacher regarding the project approach and CPD.

Introduction

Policymakers and researchers are becoming increasingly concerned regarding the role of teacher in-service professional development in educational reform. Effective professional development has been identified as a critical factor in improving professional practice and student outcomes, as well as in developing school-based conditions for sustainability (Timperley, et al. 2007). Elmore (1996, p2) argues that school change needs to focus on what he calls "the core of educational practice," which he define as "how teachers understand the nature of knowledge and the student's role in learning, and how these ideas about knowledge and learning are manifested in teaching and classwork." The importance of introducing reforms in classroom settings casts the implementation process as one of ongoing invention. It also enables participants to adopt the new practices in their working context, as well as sustain these practices in the long term (McLaughlin & Mitra, 2001).

Continuing Professional Development (CPD)

CPD may occur through workshops, conferences, peer coaching, mentoring, action research, visits to other schools, and partnerships between schools and universities

(Lieberman, 1996). It may take the form of formal and informal teacher learning, and may be self-directed, planned, or initiated by the school (Conlon, 2004). Karagiorgi and Symeou (2006) adopt the idea that teacher development includes initial teacher education, induction by experienced mentors, and in-service training. Delannoy (2000) recommends that feedback from actual field experiences of teachers must be incorporated in initial teacher preparation programs. Carr and Kemmis (1997) argue that teachers should be assisted on how they can learn from their practice, and on how to use self-reflection and self-directed inquiry to understand and improve what they have learned.

Professional learning opportunities for teachers must be situated within the context of the teacher's practice (Garet, 2001; Holland, 2005; Putnam & Borko, 2000). These opportunities must also be relevant to the teaching and learning needs of both teachers and students (Mitchell & Cubey, 2003; Timperley et al., 2003). Likewise, they must focus on actual classroom phenomena, and should be integrated into the everyday work of teachers (Cohen & Hill, 2001; Mitchell & Cubey, 2003). The most important service we can provide teachers may be to engage them in co-exploration: the repeated, thoughtful, and heartfelt discussions of what we are doing, why do we do those things, and what else we might be able to try (Bowman, 1989). Such discussions will help novice teachers to create and articulate their basic philosophy and core beliefs about early education and care. The best teachers are seekers who are always experimenting and bringing their whole life to bear on what they do in the classroom. With such teachers, our most useful role may be in helping them "name what they know" (Carter, 2000). Katz (1984) considers this idea her first principle: "Perhaps the most useful course of action available to in-service educators may be to focus on helping teachers develop understandings of their work that are more appropriate, more accurate, deeper, and more fully differentiated than they had previously been."

In this current paper, the term CPD covers the following: (1) the teacher's in-service training at one's school; (2) attending school-mandated, school-based workshops offered by the school consultant (an institute educator) in the field of early childhood; (3) updating one's knowledge and skills by working with colleagues on lessons and activities; and (4) daily discussions of classroom teaching with colleagues and writing in one's teaching journal, and being interviewed by the school consultant.

Challenges and Professional Training of Implementing the Project Approach

The project approach (Helm & Katz, 2001) aims to involve children in investigating the topics that are worthwhile and potentially interesting to them. The teacher assesses

the children's interest in the topic and how the children understand it. The teacher also helps children in developing a set of questions that will be helpful for them in finding the answers to their questions. The teacher then provides the children with experiences that can help build further understanding. In a project work, children have many opportunities to explore relevant phenomena and to represent what they have observed and what they have learned. As teachers plan for project work, they must anticipate what the children will know and will be able to do, and how they can best accomplish their investigation. Implementation of the project approach requires teachers to engage in what Pianta (2006, p. 239) calls "intentionally" and purposefully taking children's individual interests, skills, and abilities into consideration when planning activities, and then responding to them.

Teachers new to project work often fail to recognize that it offers children opportunities to independently explore concepts and to follow their own interests, fueled by their curiosity and motivation. Instead, teachers may likely adopt new content in reflecting a study regarding something in their environment. Thus, the children's work is often teacher-directed, resulting in products that are adult-like in nature (Clark, 2006). Such focused professional development is crucial for teachers in the initial stages of learning the project approach. A number of scholars and researchers have suggested that professional development through focused support, including continuous coaching, mentoring, and consultation, may be more helpful to less-experienced teachers than subjecting them to typical technique-orientated workshops (Pianta, 2006; Pianta, et al. 2008).

A combined formal workshop-based training and on-site individually tailored consultation may be the best approach in delivering professional development on the project approach to early childhood teachers. When discussing the training needs of novice teachers, Katz (1995, p. 206) notes, "Training must be constantly and readily available from someone who knows both the trainee and her teaching situation well. The trainer should have enough time and flexibility to be on call as needed by the trainee."

School and Project Background Information

The project site was a Hong Kong kindergarten, during the academic year 2009 to 2010. The kindergarten had 180 enrolled children, with approximately half attending the morning classes and the other half attending in the afternoon. The kindergarten used a thematic approach and had spent five years working with one project every

year with children aged four to six. The kindergarten employed 12 female teachers. The first half included novice teachers who have worked in preschool education from two to three years. The other half comprised teachers who have been in the field for over seven to twenty years. The school consultant received comments from the novice teachers that their project work was frustrating and that their teaching style was not very meaningful for the children. They repeatedly expressed their concerns, especially regarding their loss of control with the project work. They also felt that the project work was so engaging for themselves and for the children. Conversely, the experienced teachers felt it was a wonderful experience. The consultant also discovered that the novice teachers had no adequate knowledge about the project approach, its framework, and its features. After discussions with the kindergarten principal, we decided to give the novice teachers a series of training wherein the school consultant would also closely collaborate with them. The CPD project conducted a four-day staff seminar in the areas of project approach, curriculum planning and activities design, as well as teaching and learning, questioning, and assessment. The kindergarten principal did her best to have an experienced teacher accompany a novice teacher in each class. The kindergarten principal and school consultant spent time in the classroom to conduct observations, and to share experiences with the teachers after the lessons.

Twenty-eight children (5-year-olds) were involved in the CPD project. The present study included two class teachers, May and Kay. Kay is a graduate of a three-year Certificate of Kindergarten Teacher Education (Pre-service) program. Upon graduating, she began to work at that the kindergarten, and has been there for two years. May is a graduate of the Certificate of Kindergarten Teacher Education (In-service) program, with 12 years of teaching experience in the field of early childhood education. May and Kate began their lessons by setting a goal that the children must address through their instruction. After the daily classroom activities, they shared their observations and teaching experiences. Afterwards, they modified the lesson by reflecting on the changes made based on their discussions and classroom experiences.

Data Collection and Analysis

The purpose of the present study is to investigate the growth and development of a novice teacher participating in a CPD project. This study was guided by the following questions. (1) How does the novice teacher view the project approach? (2) How can the novice teacher grow and learn from CPD?

This paper presents the project in two ways: (1) a description of how the project (i.e., the red-crowned crane) undertaken by the class unfolded, and (2) a discussion of the novice teacher's reflections on the project approach and CPD.

To understand the growth and development of the novice teacher, the school consultant studied Kay's reflective journal and interviewed her four times within a period of nine months. Meetings were held at the beginning and at the end of training, and at the middle and the end of the project. My purpose was to uncover the nature of the phenomenon of growth as a unity and an actuality from the experience and consciousness of Kay. The analytical approach for the interview data used "microanalysis of and identification with prosodic and other dynamic features of discourse, and empathy with compassion for the object of study" (Witz et al., 2001, p. 195). The present study used an open interview approach and a reflective journal, which also aimed to develop a genuine trusting collaborative research relationship: to be like a friend in making co-contemplations of growth. Attention was not only given to information regarding the changing circumstances in teaching, focus was also placed on the subjective experiences, feelings, and related mental imagery in the participant. Other important steps were included: (1) identification of the major themes in relation to the participant experiential timelines; and (2) repeated listening to audio-taped and reading materials on reflective journal to allow sympathetic and empathetic identification with the subjective experience, feeling status, and growth of the teacher.

The audio-taped interviews were transcribed and the participant reviewed her transcript for accuracy and clarity. Analysis of the data began once the participant had reviewed her transcript or passively consented to her accuracy.

This study was triangulated using multiple sources of data to confirm the emerging findings. Data collection and analysis were going and recursive (Merriam, 1998). After the interview data were sifted through and distilled, data analysis focusing on the emerging theme and categories was conducted. With the theme identified, the transcripts of the interview, and reflective journals were re-examined in order to determine whether these patterns were present in the project and conservation of the interview.

Preliminary Planning and Selection of the Project

During spring, the kindergarten visited a community park with two classes of

5-year-old children. The teachers hoped the activity would awaken the interest of the children regarding animals, plants, and birds. Kay and May collaborated on planning the essential knowledge that they hoped the children would acquire. They listed the following essential topics and ideas:

- The living styles of animals, plants, and birds;
- The habitat of the animals, plants, and birds;
- The relationship between the climate and the animals, plants, and birds; and
- The effect of humans on the environment, and how they play a role in taking care of the animals, plants, and birds.

These essential topics and ideas were noted in their weekly lesson plans. They were kept in mind as the teachers designed the learning experience that would help the children answer their questions about animals, plants, and birds.

Phase 1: Sharing Memories and Experiences

In the classroom, Kay began the project by sharing a previous experience in a visit in the community park. The children participated by describing what they saw, including the monkeys, gorilla, deer, woodpeckers, parrots, tigers, orchids, and peach blossoms. While the children were sharing what they saw, Ming suddenly said: “All the birds living in the park can’t fly because they do not need to search for food.” Ming’s thought stimulated the children in the following discussion:

Wah Chi: “I don’t agree. I saw a cover on the top of the red-crowned cranes’ cage. It prevents the cranes from flying away.”

Chan: “Small birds can fly, big birds can’t fly. A red-crowned crane is too big to fly.”

Fun Lai: “I watched a television program which said that red-crowned cranes would fly from Japan to the south in winter.”

Wai Kei: “Are the red-crowned cranes living in Japan only?”

Lai: “I read the information from the park. It said that some red-crowned cranes live in China. However, I agree that a red-crowned crane can’t fly.”

At that moment, the children seemed particularly interested in the red-crowned crane and began to discuss how to study the bird. Kay encouraged the children to search for information regarding the red-crowned crane. They decided to collect the information from four aspects: (1) “How many types of red-crowned cranes are there?”; (2) “Where do red-crowned cranes live?”; (3) “What do red-crowned cranes eat?”; and (4)

“How do red-crowned cranes survive in winter?” The children planned to read library books and other print resources, as well as conduct an Internet search with the help of their parents to find the answers for the above questions.

Excerpts from the Reflective Journal:

01/10: I was very afraid when the children shifted the topic from birds in the park not being able to fly to red-crowned cranes. At that moment, I really didn't know how to guide them in their conversations. I then remembered that the teacher's role is to be a listener, prompter, and information giver at our training seminars. Thus, I listened patiently and did not immediately push them to determine their common interests. I found the children have established very good communication skills. They listened and interacted with each other effectively. Finally, they focused on the topic of a red-crowned crane. From this experience, I learned that teachers must create an environment wherein the children can listen and learn together. Teachers must give the children an opportunity to investigate things naturally on their own.

Reflections from the 1st and 2nd Interviews:

09/09: These are the specific things I had learned from the training seminar:

“Not every activity must be teacher-directed.”

Today, the children's responses reassured me that I was moving in the right direction. I was forced to be aware of the fact that I would probably give the children too much information. I need to let them explore some more. Now, I learned how to raise more probing questions to ask and discover how important it is to wait for more time.

“My work really does make a difference in the lives of the children.”

In my lesson, I used a wider variety of pedagogical instruments. I recognized that I need to provide more opportunities to allow children to explain and discuss connections among their strategies and ideas, as well as for them to justify their strategies.

12/09: I felt comfortable sharing my feelings with you (the consultant) at the post-classroom observation meeting. You have given positive comments. You focused on the techniques/approaches you considered would be helpful and encouraged me to try them in the classroom.

The support given by the school principal, my partner, and the consultant was very encouraging; I really felt what I was trying to do is very important. In this cooperation, I showed openness and I listened well to what you were saying.

These data provided an indication that the teacher, in her own words, believed that our model of technical support was working as originally planned. A more formal, experimental evaluation of the initiative also provided supportive evidence. The teacher's beliefs, her sensitivity to interacting with the children, and the professional support given to her were found to be the important elements of her professional development.

Phase 2: Developing the Project

The following morning, May told the story of "Can I fly?" Kay encouraged the children to share their collective information. Here are three of those who shared:

Pui: "The red-crowned crane, also called the Japanese crane, is one of the largest and the second rarest crane in the world. When it matures, the red-crowned crane is snow-white, with a patch of red skin on its head. This patch of skin becomes bright red when the crane gets angry or excited. They live in marshes, riverbanks, rice fields, and wetlands."

Wing: "The red-crowned crane has long legs, a long neck, and a big mouth. They eat fish and shrimp. Their nests are built on wet ground. Females usually lay two eggs and their incubation (by both genders) lasts for 29 to 34 days. The male takes the primary role in defending the nest against potential danger."

Yan Lam: "In China, the red-crowned crane is a symbol of luck and longevity. During winter, it migrates in flocks to other countries in the South, such as Korea, Taiwan, Japan, and China. All red-crowned cranes migrate, except for one flock that permanently resides in Hokkaido."

After some of the children are sharing, the whole class was able to solve the main question. They all agreed that a red-crowned crane can fly long distances. Kay then taught the children to write down their collected information in the form of a web. Kaye found out that they had built a broad knowledge base about a red-crowned crane.

Reflections from 3rd Interview:

03/10: It was amazing. They collected so much information about the red-crowned crane. A question arose for me: In what ways could the learning of these children be represented during the project work? I have worked with them in developing webs several times before. I thought it was the perfect opportunity that they could use their information in drawing a web. I know from experience that an early childhood facilitator must not only take care of the children's day-to-day needs, but must also be able to empower the children by representing their knowledge and ideas in tangible and accessible ways.

Excerpts from the Reflective Journal:

03/10: My thinking and practice indicated a developing understanding of the curriculum, teaching, and learning. I had abandoned many of the hallmarks of traditional instruction that I used to employ. For example, I stopped starting my lessons by teaching the information that I have prepared, and refrained from demonstrating the steps of a new activity. However, I did my best to listen and probe to determine exactly how the children were thinking about the topics.

Kay's practice was moving towards the vision of teaching for understanding, although her efforts to do so appear to be tentative at that time.

Phase 3: Concluding the Project

Kay invited the class to share what they had discovered and written about the red-crowned crane. This discussion included sharing about the answers on the four aspects the class was asked at the beginning of the study. Kai Fat shouted out, "We can play a drama." He made the class become curious about playing the drama. At that moment, Mei Mei said, "I want to make a book about the red-crowned crane. We can make drawings and write captions." Chi Wing also joined in the discussion, "I suggest we compose a children's song about the red-crowned crane. We can sing and play with musical instruments."

When asked how they wanted to demonstrate what they have learned, drama elicited the greatest interest from most of the children. Two groups of children decided to write and perform a drama. Another two groups were interested in creating a picture

book and composing/performing a children's song. The children began working enthusiastically with their teammates, as if there was no stopping them. The two drama groups were busy writing their stories and making the properties. The picture book group, on the other hand, discussed about the content of the book and drew the pictures on each page. The group performing a children's song seriously practiced singing accompanied by different musical instruments. The big day finally arrived for the presentations. The children were very excited about their work. The following are their presentations:

Drama A: Mr. Red-crowned Crane Finds a Wife

Mr. Red-crowned Crane is growing up. He wants to find a wife. He met a lady parrot in the forest. "Dear lady, do you want to marry me?" asked Mr. Red-crowned. "Sorry, I am not a lady red-crowned crane. My beak is curled and sharp, I can't marry you," Lady Parrot said. He then found a Miss Peahen on the tree. He asked her, "Dear lady, do you want to marry me?" Miss Peahen replied, "Sorry, I am not a red-crowned crane. I have colorful feathers, whereas your feathers is white, I can't marry you." Finally, he met a lady Pigeon. "Dear lady, do you want to marry me?" asked Mr. Red-crowned. Miss Pigeon replied, "Sorry, I am not a red-crowned crane. Truly, my beak is sharp, but your beak is long and sharp. My feathers are white without a patch of red skin on my head. Thus, I can't marry you." Finally, Mr. Red-crowned Crane met Miss Red-crowned Crane at the wetlands. They fell in love with each other, and were married. Several months later, the female crane laid two eggs. After 30 days of incubation, the red-crowned crane babies were born.

Drama B: Red-crowned Crane Migrant

As the weather got colder and colder, the family of red-crowned cranes planned to migrate to Japan. The baby red-crowned crane was worried about the food, he asked his mum, "Will we have food in winter? Will we eat sushi?" "Don't worry, baby. We will fly to the wetland and eat fish and shrimp in Japan."

The Children's Song: "The Wonderful Red-crowned Crane"

The red-crowned crane is very, very funny; it has a patch of red skin on its head.

It has the longest mouth, longest neck, and longest legs.

It likes to eat fish, shrimp, and grasses.

It flies to Japan in winter.

The red-crowned crane, is so good, is so good.

We all love it.

Picture Book: Red-crowned Crane

The picture book had four pages:

Page 1: The red-crowned crane is the second rarest species of cranes in the world. It has the three longest body parts among cranes, It has the longest mouth, neck, and legs. It is snow-white in color, with a patch of red skin on its head.

Page 2: They migrate in flocks to Korea, Japan, China, Taiwan, and other countries in East Asia to spend their winters.

Page 3: When the male red-crowned crane matures, he makes loud noises to attract the female red-crowned crane.

Page 4: The red-crowned crane eats a variety of insects, fish, shrimp, grasses, corn, and waste grain. They live in wetlands and grasslands. Thus, we need to protect them from water pollution and water shortages in the wetlands.

Excerpts from the Reflective Journal:

04/10: As the children were busy drawing their webs, May reminded me to discuss with the children important details on how they how they were able to present useful information in class. I found it to be a very good idea. May is an experienced teacher and a very nice partner. She always gives me good advice. I feel safe working with her.

During the red-crowned crane project, I really intended to offer representational media. For several weeks, I offered different media when we were investigating the red-crowned crane. I facilitated the scaffolding of the children's work in each medium, and offered helpful ideas. However, I frequently reminded myself to just allow the children to naturally progress by themselves, instead of, for instance, telling them to make something that "looked like" a red-crowned crane.

Reflections

Reflections on the Project Approach:

Along the way, Kay had learned that some features of project work are valuable for children because they were engaged in experiences that involved self-directed exploration. The teachers could see the children's emerging interests, as opposed to when they conduct more guided activities, where children do not have much room to do new and different things. The teachers led the children towards a path of exploration, observation, representation, and understanding, threading into

further depths every step of the way. The teacher's role had changed and expanded. They are helping children reach their own conclusions on a topic. Children are assisted on building their knowledge through carefully planned experiences and provocations.

Reflections from the 4th Interview:

06/10: I found the red-crowned crane project very successful. The children were extremely focused in their work and had a clear idea to which directions their projects would proceed. I was often amazed to see the pride in every child when he or she would present his or her work in front of the class. The amount of time and energy the children invested in their project was outstanding. I noticed a remarkable growth in their social competencies. I also gained insights into my role in engaging the children to collaborate. The children have developed their abilities to ask questions, listen to their peers and adults, negotiate through disagreements, and stand up for their convictions. The project really proved to be valuable to the children in their educational, social, and emotional development.

This project has been worthwhile for the children and has been especially worthwhile for me. We often ask children what they liked the best about a project. For myself, I have to say that being with the children was the best part, not just as the teacher, but being truly with them on the journey. I never believed that I would also learn with my children until I tried the project approach. After concluding the project, I realized that I could not go back to my old ways of teaching. I have gained a better understanding of project work and how to support projects in the classroom.

Reflections on CPD:

Linking theories to perceived needs

Kay discovered that she had difficulty in transferring new skills and knowledge through teaching. She noted that the dynamic model of CPD should meet the needs of teachers during the different phases of their careers (Campbell & Kane, 2000).

Reflection from the 4th Interview:

06/10: I would like training to take place in the classroom so that we can see

what happens during actual practice. Through theoretical learning, you do not acquire much since you tend to forget things... All trainings and discussions about new trends were at the theoretical level. However, the trainings failed to even provide a sample lesson in an actual classroom. CPD would really be very helpful to teachers if it has an in-service training part regarding teachers' specific problems. CPD should also train teachers how to discuss each lesson that integrates the various elements of teaching, student learning, as well as an evaluation of teaching.

In the previous reflections on how Kay has learned from the lesson, CPD elicited an in-depth analysis of the instructional decisions and children learning, including the need for a detailed explanation of the specific difficulties encountered in her classroom.

Establishing practicality and active learning

Kay highlighted the need for content relevance and having situated, work-embedded, and contextualized learning that could enable educators to share their teaching experiences with others, reflect on practices, test new programs, and implement projects (Walsh & Gamage, 2003). Such learning may include peer coaching, critiques from friends and colleagues, quality reviews, appraisals, action research, portfolio assessments, and collaborative work (Day, 1999).

Reflections from the 3rd Interview:

03/10: The school-based training program emphasized practicality. It provided teachers with the opportunities to engage in co-exploration: to conduct heartfelt discussions of what we were doing, why we were doing those things, and what else can we try. These discussions have helped novice teachers create, articulate, and apply their basic philosophy and core beliefs regarding early education and care. Moreover, the kindergarten principal and the school consultant attended my class. They shared their ideas that teaching could engage us in a continuing discussion of the meaning and possibilities of our practice. I found the school-based training and project work to have a great impact on my professional development.

The findings of the present study suggest that novice teachers need an intellectually stimulating environment that creates a supportive network for being a teacher educator. Such an environment can encourage novice teachers to dialogue in an open forum, to promote an atmosphere of caring, and to give respect for the multiple perspectives that can be created.

Changing views of teacher profession

As a professional teacher, Kay emphasized rich academic knowledge and good teaching practices as the most importance areas in teaching. She mainly required the need to be a good practitioner. At present, she has become aware of the essence of reflectivity and metacognition.

Excerpts from the Reflective Journal:

05/10: In the past, I have stressed the high importance of subject knowledge and actual practice of teacher educators. Now, I am expected to test new theories and link personal practice and students' experience, and to learn from those theories and develop my own. The reflective journal and collegial discussion have enhanced my self-awareness and my action reflections. It helped me to explain tacit knowledge of teaching and make it available to aspiring teachers. Thus, it bridges theory and practice. I think those in the teaching profession are expected to have achieved a high level of professional maturity, which is expressed within a framework of professional autonomy.

The findings are particularly significant for novice teachers engaged in supervising students at the workplace. Teachers in these roles must feel confident in taking a metacognitive stance toward their classroom practice. This stance will allow them to intentionally model reflective thinking for the novices for their own professional growth, and to realize that being a teacher is a lifelong learning process.

Discussion and Conclusion

Based on the findings of the current paper, the CPD project supports the professional development of a novice teacher in three areas. First, it helps in developing teaching competencies. Second, it promotes positive socialization in organization and in profession. Finally, it facilitates the development of one's professional identity.

The organizational learning and support of teachers for each other's professional growth occur within an organization (Fullan, 1991). The role the school leader plays in his/her school's transformation in becoming a learning organization depends on the leader's competence. As an experienced colleague, the mentor is a supporter of the novice teacher's professional development within the school context. The mentor also helps the novice teacher in adjusting to the school as an organization and to the teaching profession, and provides assistance in solving everyday work-related problems.

Teacher education in Hong Kong has never focused on developing a support structure for novice teachers, especially in the early stages of their career. People's views and beliefs on becoming a teacher have changed. The professional development of a teacher is a continuous process. This includes initial training, induction year (including entering the profession and socialization), and in-service training. Teacher education must also include a support program for novice teachers.

Teacher education and teaching are complex professional practices that can be conceptualized in various ways that both offer different implications for teacher learning. This study illustrates the important challenges teacher educators must face in finding new ways of creating learning opportunities in teaching students and novice teachers. These opportunities will be meaningful for teacher educators in their own professional development and growth. This task is not simple. Nonetheless, such work is crucial in articulating what might be valuable for the education community: important things to learn from and build upon.

References

- Bowman, B. (1989). Self reflection as an element in professionalism. *Teacher College Record*, 90, 444-451.
- Campbell, A., & M. Kane. (2000). Best of times, worst of time: The importance or otherwise of regular in-servicing. *Teacher Development*, 4, No. 2: 293-302.
- Carr, W., & S. Kemmis. (1997). *Becoming critical*. London: Falmer Press.
- Carter, M. (2000). Helping teachers names what they know. *Child Care Information Exchange*, No. 135, 18-21.
- Clark, A. M. (2006). Changing classroom practice to include the project approach. *Early Childhood Research & Practice*, 8 (2). Retrieved Oct. 15, 2011, from <http://ecrp.uiuc.edu/v8ns2/clark.html>
- Cohen, D. K. & Hill, H. C. (2001). *Learning policy: When state education reform works*. New Haven, CT: Yale University Press.
- Conlon., T. (2004). A failure of delivery: The United Kingdom's New Opportunities Fund programme of teacher training in information and communications technology. *Journal of In-Service Education*, 30. No. 1: 115-139.
- Day, C. (1999). *Developing teachers: The challenges of lifelong learning*. London: Falmer.
- Delannoy, F. (2000). Teacher training or lifelong professional development? Worldwide trends and challenges, *TechKnowLogia*, 10-13. http://www.technologia.org/TKL_Articles/PDF?193.pdf.
- Elmore, R. (1996). Getting to scale with good educational practice. *Harvard Educational Review*, 66(1), 1-26.
- Fullan, M. (1991). *The new meaning of educational change*. New York: Teacher College Press.
- Garet, M. S. (2001). What makes professional development effective? Results from a national sample of teachers. *American Educational Research Journal*, 38(4), 915-945.
- Helm, J. H.; & Katz, L. G. (2001). *Young investigators: The project approach in the early years*. New York: Teacher College Press.
- Holland, H. (2005). Teaching teachers: Professional development to improve student achievement. *Research Points*, 3(1), 1-4.
- Karagiorgi, Y., & L. Symeou. (2006). Teacher professional development in Cyprus: Reflections on current trends and challenges in policy and practices. *Journal of In-Service Education*, 32, No. 1: 47-61.
- Katz, L. G. (1984). *Helping others with their teaching. More talks with teachers*. Urbana, IL: ERIC Clearinghouse on Elementary and Early Childhood Education.
- Katz, L. G. (1995). *Talks with teachers of young children: A collection*. Norwood, NJ:

Ablex.

- Lieberman, A. (1996). Creating intentional learning communities. *Educational Leadership*, 54, No. 3: 51-55.
- McLaughlin, M., & Mitra, D. (2001). Theory-based change and change-based theory: Going deeper, going broader. *Journal of Educational change*, 2, 301-303.
- Mitchell, L., & Cubey, P. (2003). *Characteristics of professional development linked to enhanced pedagogy and children's learning in early childhood settings: Best evidence synthesis*. Wellington, New Zealand: Ministry of Education.
- Pianta, R. C. (2006). Standardized observation and professional development: A focus on individualized implementation and practices. In Martha Z. & Ivelisse M.(Eds.), *Critical issue in early childhood professional development* (pp. 231-254). Baltimore, MD: Brooker.
- Pianta, R. C.; Mashburn, A. J.; Downer, J. T.; Hamre, B. K.; & Justice, L. (2008). Effect of Web-mediated professional development resources on teacher-child interactions in pre-kindergarten classrooms. *Early Childhood Research Quarterly*, 23(4), 431-451.
- Putnam, R., & Borko, H. (2000). What do new views of knowledge and thinking have to say about research on teacher learning? *Educational Researcher*, 29(1), 4-15.
- Timperley, H. S., Phillips, G., & Wiseman, J. (2003). *The sustainability of professional development in literacy*. Wellington, New Zealand: Ministry of Education.
- Timperley, H., Wilson, A., Barrar, H., & Fung, I. (2007). *Teacher professional learning and development: Best evidence synthesis iteration*. Wellington, New Zealand: Ministry of Education.
- Walsh, F., & D. Gamage. (2003). The significance of professional development and practice: Towards a better public education system. *Teacher Development*, 7, No. 3: 363-383.
- Witz, K., Goodwin, D., Hart, R., & Thomas, S. (2001). An essentialist methodology in education-related research using in-depth interviews. *Journal of Curriculum Studies*, 33(2), 195-227.