Making the 'Theory-practice Link' in an Action Learning Framework: Report on a New Pedagogical Approach in an In-service Kindergarten Teacher Education Programme

*Kwong, Lee Wai Yee, Margaret[1]; Chan Cheng Pui Wah, Doris[1];
So Suk Lin, Joanna[1]; and Kwong Wai, Man[2]*

[1]Hong Kong Institute of Education, [2]City University of Hong Kong

Abstract

Teacher education programmes are often front-loaded with theories. Students learn these theories first and then apply them in their supervised teaching practicum. There are two assumptions for sequencing theories before practice. First, good teaching is informed by theories. Second, these theories are the only valid knowledge for teaching even if the students are in-service teachers. These assumptions have the effect of privileging theories over other forms of knowledge and separating theories from practice by postulating a linear relationship between the two. We dispute a linear view of the 'theory-practice link' and propose instead a dialectical relationship between the two. It is from this standpoint that we have devised and field-tested a new pedagogical approach in teaching theories/practice that engaged in-service kindergarten teachers/principals in a collaborative, reflective inquiry of their teaching practice in an action learning framework. Specifically, two questions are addressed: First, how can we help our students to connect theories with practice? Second, how can we capitalise on their teaching experience to help them examine the theoretical input? In this paper, we present our teaching experience as well as what and how our students learned in this new pedagogical approach.

Introduction: The Issue of Teaching the 'Theory-practice Link' in Teacher Education

As an outgrowth of the applied science view, teacher education programmes are often front-loaded with theories on the grounds that students would need to learn the theories of learning and instruction first before taking their teaching practicum. There are two implicit assumptions here. First, these theories are applicable in the real-life context for informing good teaching. Second, formal theories constitute the only valid knowledge for practice. These theories are often taught in a didactic manner as de-contextualised abstractions and generalisations, to be applied later by students in their teaching practicum. We fault this approach to teacher education on two counts. First, students often perceive a disjunction between the abstract form of these theories in texts and their lived form in practice. As a consequence, many students find these theories to be 'high-sounding' but irrelevant to practice. Unless we are able to help students make sense of the link between theories and practice in the immediate context of classroom teaching, students will face problems in bridging the gap between the two. However, as their identity as trained teachers is hinged on the theoretical knowledge they possess, students will try to 'apply' the theories taught, often in a superficial manner, even if they are

uncertain whether the way they use these theories will lead to meaningful learning. They do so because they recognise the survival value of such attempts to 'apply' theories in their teaching practicum. Once the practicum is over, they will revert to their previous practice, as though the 'new' theories are either not useful or there is nothing new about them.

Our Teaching Experience of an In-service Kindergarten Teacher Education Course

For readers to appreciate the pedagogical concerns addressed in our project, it is necessary to discuss the contextual background of teacher education for kindergarten teachers in Hong Kong. At the time of the study, almost all kindergarten teachers begin their teaching career as untrained teachers. They are socialised into adopting the transmission model of teaching and learning because the culture in most of the local kindergartens conditions teachers to adopt prescriptive curriculum planning and teaching. On their part, they would also favour the transmission model since it would give them a sense of certainty and control in the classroom. Many of them receive initial teacher education (the Qualified Kindergarten Teacher Course) only after they have taught for some years. By the time these trained teachers pursue further study in the current course, the In-service Certificate in Education Course for Kindergarten Teachers, many will have taken up leadership roles as senior teachers or principals in their kindergartens, by then having acquired a rich pool of practical knowledge 'on the job'.

In this course, the link between teaching and learning is established through theoretical input that runs parallel with a teaching practicum. The former is delivered through a taught module - *Teaching and Learning in the Contemporary Kindergartens*. The aim of this module is to provide a theoretical foundation for students to understand how children learn and thus how teachers should teach. As for the teaching practicum, students receive an extended period of supervised teaching back in their workplace. Reflecting on our experience over the years in teaching untrained kindergarten teachers, we identify two pedagogical concerns specific to the in-service mode of teacher education.

First, the conventional approach to teacher education emulates a 'deficit model'. It is assumed that students need to learn a body of professional knowledge and skills before they are able to teach competently, even if they have had substantial teaching experience. Thus, for the senior teachers and kindergarten principals, engaging in a student role in continuing teacher education has the effect of devaluing their teaching experience and their practical knowledge of teaching; the perception being that the practical knowledge was seen to be an inferior kind of knowledge and should be 'de-learned'. The use of didactic teaching methods further suppressed the relevance of their teaching experience. Partly because they want to protect their self-image and the integrity of their teaching experience, these experienced teachers tended to reject the theoretical input they were expected to acquire. The gap between theory and practice will thus remain since this approach to teacher education actually perpetuates the separation of theory from practice. Whilst theories are taught, and are supposedly, learned, the application to practice remains problematic.

Thus, in the course of teaching in this module, we found that the students would adhere to the conventional approach of preparing a prescriptive curriculum, allowing little room for flexible responses to children's individual needs. At the same time, they searched for recipe-like guidelines to apply a theory and often followed them uncritically. They had turned teaching into a technical practice. Teaching became a matter of acting according to prescriptions, with theories being unquestioned. Students did not approach teaching with an inquiring mind and did not examine the rationale of classroom activities. In the teaching practicum, they found it difficult to ground their practice in the newly learned theories. From this experience with students, two pedagogical questions arose:

How should we teach theories and practice so that our students will be able to achieve the link between the two? Second, how can we capitalise on their teaching experience to help them examine the theoretical input? We decided to pursue this question through a process of action learning.

Devising an Alternative Approach to Teaching the 'Theory-practice Link'

The module, *Teaching and Learning in the Contemporary Kindergartens*, provided an appropriate context in which an alternative approach to teaching theories that would make proximal connections to practice could be developed and tested. First, the fact that the students were either principals or experienced kindergarten teachers would minimise the power differential in the student-teacher relationship, resulting in more open articulation of their views and learning experiences. Second, we would be able to arrange team teaching for this module, resulting in benefits from collaborative leaning. Finally, the institutional support facilitated by the Action Learning Project Fund was available to enable us to field test this approach and to study the teaching-learning process and its impact on the quality of student learning about the relation between theories and practice.

The investigation started in the fall of 1997. There were 90 in-service kindergarten principals and teachers enrolled in the module. They were required to study and improve their teaching practice within their own classroom. We had employed three sets of action strategies that addressed the following questions:

• How can we help students to make the connection between theories and practice?

• How can we capitalise on students' teaching experience to help them make sense of the theoretical input of the module?

• How can we support students in the learning process so that they will be able to re-examine critically their previous teaching experience and evaluate the knowledge status of the theoretical input in light of it?

The first set of strategies capitalised on the students' own teaching experiences as learning material to be examined and reflected upon. Four to six students functioned as a small learning community in a series of seminars to reflect upon their teaching experiences and examine the assumptions underlying the way they framed their problems in teaching. After arriving at a common problem, they then collaborated in a process of problem-based learning. Teachers served as 'resource persons' to help students make the links to the theoretical work relevant to the problem being investigated.

Through a process of action research, the second set of strategies helped the students make the connection between theories and practice. They were introduced to the four components of action research - planning, action, monitoring and evaluation (Kemmis, & McTaggart, 1982). Each student was required to identify a problem in teaching and designed a theory-informed approach to the problem, and then go through the Action Learning cycles to improve her teaching practice. A field experiment was then conducted to test the theory-informed approach to the teaching problem identified. The actions and experiences of implementing the approach were reported in the reflective seminars. For the purpose of aiding reflective discussion in the seminar group, the students were required to document their classroom experience/observation in a personal portfolio. In the ensuing discussion, they engaged in reflective inquiry into the efficacy of the approach and worked on any implementation problems that might arise. There were also report-back/sharing sessions in the whole class to disseminate what was learned in the reflective seminars.

The third set of strategies encouraged the students to engage in a critical discourse on teaching and learning. They were shown how to adopt the role of a 'friendly critic' in a learning community of professional peers. Their performance was assessed not only in terms of their subject-matter knowledge, but also in terms of their capacity to reflect on practice, as well as to be self-critical and resourceful in problem-setting and problem-solving.

Studying in the Module - The Students' Action Research Experience

The module steered the students through a process of problem-setting leading on to an action research for testing a theory-driven approach to solve the teaching problem identified in the beginning (cf. Gore, & Zeichner, 1991). Each student compiled a portfolio to document the teaching and learning process, which furnished a source of field data for examining her teaching problem as well as the process and outcome of the action research (Wade, & Yarbrough, 1996; Loughran, & Corrigan, 1995). The series of reflective seminars provided the medium for the students to conduct a collaborative inquiry into each other's action experience. We served as resource persons (Schön, 1990). The action experience that the students went through is summarised in the following table:

Figure 1: The students' action research experience

Stage	Theme
Lived experience in teaching	Registering problematic experience in teaching
Problem setting	Framing of teaching problem
Planning changes	Designing theory-informed approaches
Field testing	Registering action experience
Reflective inquiry	Reframing problem, evaluating efficacy of design
Modifications	Theory revision and design revision
Repeat action-reflection cycle	

The Process of Inquiry through Action Learning

The project went through two cycles. The first cycle took place in the first semester of 1997-98. During this period, we conducted bi-weekly inquiry sessions to reflect on and examine our action experience in serving as 'resource persons' in the students' reflective seminars. On the students' part, they also kept reflection journals on their learning experience in these seminars. We also set up focused group interviews at regular intervals to evaluate the students' learning experience and the action strategies adopted in this module. An interim evaluation was conducted at the end of the first term. The evaluation was focused on the learning that we had derived from our action experience, with particular emphasis on the way we implemented the action strategies and the quality of student learning as a result, as revealed in students' portfolios and reflection journals. Planning for the second action cycle of the project took place in February 1998, and was based on the findings of the interim evaluation. The second cycle took place from March to June 1998 during which the action strategies were refined and field-tested again. The same arrangement for the reflection phase in the first cycle was adopted in the second cycle.

Taking the Students Through the Action Research Process

> … A member raised an issue about giving dictation to kindergarten children. The group began to talk about the literary purpose of dictation (helping children to memorise words or to learn them). They converged on the opinion that dictation was a necessary 'evil' in order to help children fit into the primary education system, even as they were aware of the downside of it (children might forget easily, the constraints of time, and parents' misconceptions). In other words, they framed the issue in terms of the constraint imposed by extraneous factors. They were unable to frame it in a meaningful way within the context of their teaching practice. It sounded like they were powerless to induce change… Thus, I guided them to reflect on their way of naming and framing the problem: Why do they consider it problematic? What are the advantages and disadvantages of rote learning? What benefits can children gain? I had a thorough discussion with them. My aim was to connect 'dictation' with 'language learning'. I brought up some theories (emergent literacy, constructivism) and tried to connect them to their lived experience. I had another aim in mind. I wanted to help them appreciate the complexity of the teaching and learning process and how these theories would confer meaning in different contexts … (Teacher)

The above is an excerpt drawn from a teacher's (the first author) reflection journals that documented what she had attempted to do in one of the students' reflective seminars. It suggests that problem-setting is something crucial and yet difficult. In the first phase of the action-research process, the students often dwelt on the surface manifestation of a problem and missed what was underlying. Very often, they began framing a problem in abstract terms and a context-free manner. A common 'mistake' was to plunge straight into 'problem analysis' and leave problem-setting implicit. For instance, they often attributed a problem to the constraints and limitations imposed by some global, external factors, such as parental expectation, inadequate government support, discontinuities between the kindergarten curriculum and the primary school curriculum. Problem-setting was problematic since there was no structure or guidelines for them to follow. As a result, there was a tendency to re-cycle the public discourse in accounting for the difficulties in teaching. In other words, the dominant educational discourse showed a powerful presence in shaping the students' perspectives in making sense of their teaching experience. However, identifying these global factors as the 'cause' of problems in teaching would have precluded the students from finding responsive actions to remedy the situation since there was little that they could do about these global factors.

The fact that the students demonstrated inadequate ability in problem-setting attested to an important value of this new approach, that is, foregrounding the problematic nature of problem-setting and hence the need for taking a critical stance to this task. The pedagogical concern was to help the students critically examine how they set problems and the educational discourse that shaped their view of these problems, and to probe them to explore alternative ways of viewing and setting problems. Following the principles of problem-based learning (Schmidt, 1983), we helped our students activate their prior knowledge relevant to the problem context they were in. This process took place in small-group discussion. We joined the discussion as resource persons. Occasionally, we steered and extended the on-going discussion by probing the students and offering our view at the same time. Over time, we witnessed a gradual improvement in the quality of the ideas generated in these discussions as well as the quality of the interactional process. The students became more ready to risk articulating their ideas, even if they were still crude, and were also more open to multiple views even if they appeared contradictory on surface.

We could have served our students better in grappling with the task of problem-setting if we worked in small groups. However, with more than thirty members in each group, and given the diversity of problems that the students brought up, we could not offer our guidance to each student. What we did, was to pick a few problems as the platform for examining the significance of problem-setting and how best to approach this task. In particular, we drew their attention to

two things. First, we helped them understand the significance of the 'ownership' of a problem. Unless they framed it as a problem they owned, and in a manner that renders it amenable to change, there would be many 'explanations' and even 'excuses' why they could do little about an existing problem. Second, we 'took them to task' in critically examining any implicit cognitive schema that had conditioned the way they made sense of their teaching experience, and hence the way they framed a problem and construed the attendant account for it. Changing a person's habit of thinking and perception is obviously not an easy task. However, as we have learned in this project, the experience of carrying out an action research did help our students uncover their preconceived notions and personal ideology about teaching and learning.

After 'problem-setting', the focus of the next stage of the action research process was to deliberate on the ways and means for tackling a problem in teaching. At first, the students tended to approach the task in binary terms, trying to discern between the 'right' and the 'wrong' ways of teaching. They were not confident in trying out innovative alternatives. Instead, they looked for 'recipe-like' teaching methods most accessible to them. These methods were 'recipe-like' because they were explicit about the 'how'. They carried authority because they were transmitted to students as though they could prescribe actions in the classroom. However, when the students could not elicit ready-made prescriptions from us, they would jump to some solutions quickly, well before they had undertaken an adequate problem analysis to identify the core of the problem. Under such circumstances, the alternatives they arrived at would have little impact.

We have no objection to begin with 'recipe-like' methods since this is the sort of knowledge that the students would have owned. We helped them examine their experience in bringing these methods to bear on the problems in teaching in two specific foci. First, we encouraged them to unravel the underlying rationality. This was a vital step in explicating the theoretical underpinning of a teaching method/strategy. We also sensitised them to the presence of competing theoretical perspectives and hence the availability of alternatives. To foreground this fact necessarily raised the issue of choice, and that involved deliberation and judgement in a context-sensitive manner. In the process, they had to grapple with the problem of translating context-free prescriptions into practical actions that were context-bound, and learn to live with the indeterminacy intrinsic to practice. On our part as their teachers, we tried to connect them to the body of theoretical knowledge and broaden their scope of thinking.

An Assessment of the Quality of Student Learning

Having completed the two phases of the action learning cycles, we are convinced that the action *research experience has substantially raised the quality of learning in this module. In the past, the didactic mode of teaching failed to provide the kind of learning experience that would address directly to the problem in connecting theories with practice. Given the fact that our students are concurrently practicing kindergarten teachers, situating the pedagogy of this module in their site of practice is a logical step to take. We have taken this step. We are also satisfied with the result, as revealed by both the teachers' and the students' account of their experience.

> In the eighth session (11.2.98), I examined the constructivist theory by showing a video on a constructivist classroom. I introduced to the students what would constitute meaningful learning and how it was situated within the socio-politico-cultural context. I also showed them the art in designing the teaching and learning process. Through guided discussion, they began to comprehend the theories by connecting them to their own experience. … A member observed that the teacher in the video had tried to give some concrete experiences to the children to assist their learning. I asked what difference it would make in providing children these experiences. Another member replied that it would give children a better sense

because they had some ideas about the shape of a fish before they started to make 'fishes' in class. I asked which theory would provide the rationality for this approach. The group replied that the children had a real experience and this was constructivism." (An excerpt from the first author's reflection journal)

… After taking the module, what I consider important is to help children to be self-motivated in learning and let them learn in a relaxed environment. I don't think there is any teaching approach that we can apply directly in a school… Even though the plan didn't include the whole idea of 'High-Scope', I still found children becoming more self-motivated because they set the plan by themselves. At the same time, the teachers were able to finish the topic. It would minimise parents' worries. Though we had theme teaching also, we insisted on allowing children the chance to voice their opinions. They knew a lot of things… Actually, what children raised were exactly the things that I wanted to teach them. They learned not only from me, but also from other children in the class. It is through children's interaction among themselves, a kind of constructivist teaching approach. Everybody contributes his/her part." (An excerpt from a student's reflection journal, 6.5.98)

Learning outcome is evident in **the students' demonstrated ability to move** between theory and practice in the action research process - finding theories, evaluating theories, constructing action design from a theory, field-testing the action design, and feeding back the result to theory development. The following quotations from the reflection journals of three students support the worth of the teaching method discussed in this paper.

- Conception of 'teaching and learning' before the course

  I only interpreted 'teaching and learning' literally. Teaching is about what I transmit to my students, that is, to transmit knowledge in a direct way. Learning is the knowledge that students will acquire directly from me. (Student A)

  Before the course, I had never thought of the relationship between teaching and learning. I only regarded teaching as very important and teachers should teach everything. I often thought that teachers, if they had experience, could teach well and children could then learn well. I never thought about what 'learning' was. Nor did I consider 'learning' as something that could be explored by children themselves. (Student B)

  Teaching and Learning is related to new teaching approaches and issues about the learners (children). It helps us to become more professional. (Student C)

- Conception of 'teaching and learning' after the course

  I hope in future I can broaden children's experience. I also hope I can integrate my own ideas and method with different approaches and theories, and then create a teaching approach that is suitable for [my] children. (Student A)

  I view 'teacher' as the one who provides an environment that can stimulate children to learn and allow children to use their own initiative in learning. 'Teaching' means observing and guiding children when necessary in order to help them explore. The emphasis should not be on setting limits. The meaning of 'learning' is to place children at the core in the learning process. Children should take the initiative to solve problems on their own. (Student B)

- Views on 'theory' before the course

  To me, theory was boring and not practical. It could hardly be used in class, and I resisted it. (Student A)

Before the course, I never knew there was theory for KG education. I thought everything came from experience. I followed the methods of my seniors or the instructions given by the principal during meetings. When I encountered problems, I started to question if my teaching was beneficial to children. Before the course, I never used any theory. I didn't know what theory was. (Student B)

Before the course, 'theory' was something very abstract. (Student C)

- Views on 'theory' after the course

After the action research, I begin to accept 'theory' because I can learn something from it. For example, if I want children to be creative, I'll have to give them some real daily life experiences, such as to take a field trip to the 'Birds Street' first. Looking back, I can trace the idea to Piaget's theory. During the field trip, children acquire new knowledge through interaction with adults and peers. This learning process in fact is Vygotsky's theory, where I start to establish the 'scaffolds'. (Student A)

After the course, my attitude towards theory is totally different … I have made the change because I have learnt different teaching approaches and have more theories to support my own research. I have more confidence to try, and this gives me more choices and alternatives in my teaching … I do use theory … I realize that I can't simply apply the whole framework created by the theorist without any adaptation because the environment, the context and the content of study are different in Hong Kong. Thus, I think theories of others are applicable to my teaching and learning environment in the manner of getting the spirit of it and adopting it to suit our environment. Only then can we grasp the true meaning of theory. If teachers are not willing to try on the pretext that they are something Western' and not applicable in Hong Kong, the 'meaning' will be lost. Every theory needs to be tried out first and then modified. (Student B)

After the 'Teaching and Learning' classes in these two years, I have changed my attitude toward theories. Theory is not abstract. In fact, it can be validated in teacher, by children and by me … For example, children's repeated trials in block building shows that they learn from experience. Experience inspires their thinking and develops their ability to organize … I let children find out the solution by themselves and provide scaffolds to help them learn actively. I learn all these from theory … I find theory to be more accessible. (Student C)

As we see it, the three students have undergone, at the end of the module, a 'paradigmatic shift' in their conception of teaching and the role of theories. In addition, the action research experience has engendered other good qualities for professional work among the students. They become more reflective and reflexive. They appreciated the importance of being critically aware of their practice. They developed an understanding of the relationship between theories and practice, thinking and acting, as a dialectical one. They were able to create an instructional design that supported meaningful learning for children. They became more articulate about their personal philosophy of teaching and learning.

- Development of Critical Awareness about Problem-setting

Our students were used to developing their teaching plan beginning with a set of learning objectives as though the latter was given and unproblematic. Very often, they adopted these learning objectives as a rhetorical device to justify the value of what they were going to teach. Seldom did they take into account of the context in which teaching and learning took place. However, once they began the action research process, they came to recognise the task of problem-setting as extremely difficult.

- Becoming More Reflective and Reflexive

After going through the two cycles of problem-setting, planning, action and reflection, the students had acquired a new conception of teaching as a process of educational inquiry as well as a reflexive practice (cf. Elliott, 1990). The process of educational inquiry began with a 'problem-in-context' that they had chosen. They examined the problem in depth, explored alternative views, and reflected on its implication for children's learning in that context. Reflective thinking grounded on a concrete problem situation provoked them to examine the hidden premise and any exceptional experiences. In turn, this often led to insights for change and opened up new action potential. The field experiment part furnished a structure for implementing action and systematic monitoring of the action experience. The latter in turn triggered further reflection.

At the end of the action research process, the students came to appreciate the dialectical relationship between action and reflection. They found that reflection would initiate new action, which, in turn, would trigger another round of reflection (Elliott, 1990). They also came to appreciate the learning potential that reflective thinking could unleash. They became increasingly reflexive, turning inward to examine the premise and the tacit assumptions underlying their way of teaching. They also recognised a close parallel between their learning experience in the action-reflection loop and the learning experience of young children in their classroom. Thus, rather than aiming at controlling the outcome of learning, they came to view teaching as an enabling activity to help children learn through a dialectical process between knowledge and individual subjectivity (Elliott, 1990).

- Appreciating the Complexity of Teaching and Learning

Before entering into the action research process, the students held the conception that the transmission of knowledge was what teaching was all about. In the same vein, learning was conceived as the knowledge that children received from their teachers. In other words, such a conception of teaching and learning emphasized the product - what was taught and to be learned by children. After going through the action research process, they began to appreciate the process of learning and the role of experience and reflection in learning. They came to conceive learning as involving the construction of meaning from one's experience. The act of meaning-making necessitates drawing upon the intellectual resource of professional discourse and would at the same time be constrained by it. Given this insight, they adopted a different orientation toward teaching. Instead of emphasising a teacher's teaching, that is, what is taught and to be learned by children, they emphasised a learner's learning, that is, how children learn as well as what is learned as a result. In this connection, they began to appreciate the contextual variables, particularly the social (Liston, & Zeichner, 1991) and the cultural (Bruner, 1996) variables. They embraced the view that:

> Pedagogy is a reflective process. It is process rather than product data which form the basis of evaluation of teaching. And a major source of those data will be the student themselves; their accounts of the respects in which teaching enables or constrains the development of their powers in relation to the things which matter. (Elliott, 1990, p. 6).

- Theorising in Practice and the Construction of Personalised Knowledge

In the beginning, the students embraced a segregated notion of the 'theory-practice' relationship. Theories were something separate from practice, something they had to apply in practice and yet they found it difficult to understand and not immediately usable. In the action research process, they immersed themselves in the professional discourse on teaching and learning. They had the experience of actually using theories to help them understand and critique the dynamics of teaching and learning. In the process, they had uncovered their personal philosophy implicit in their way of conceiving such dynamics and framing problems, and in the solutions they looked for as well as the strategies pursued.

Conclusion

What our students had gone through in the action research process was a generative process. We provided the scaffolding for them to engage in constructing an evolving discourse. The peer group furnished a source of support and different perspectives and viewpoints. They learned that every teacher has in his/her possession some personalised, tacit notions about pedagogy. By uncovering these tacit notions and rendering them open to critical examination in an open, free discourse with other teachers, they could generate and revise their personal theories of teaching through a reflective inquiry of their teaching experience. They came to understand that it would not be good enough just to put into practice a pedagogical theory. It would also be important for them to generate theories from their practice. Only then would they feel empowered and capable of theorizing in practice, both independently and collaboratively, with other teachers. Given the space and the support for reflective inquiry into their practice, these students (and other teachers for that matter) would be able to generate and articulate their pedagogical theories that were embodied in their practice.

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