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Linking Theory To Practice: A Case-Based Approach in Teacher Education

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Abstract

A major concern in teacher education is applying theories and principles in ways to show their relevance to classroom practice. Case study is recommended as one way to link theory to practice as this method can help to present students with some aspect of real-life scenarios whereby they can apply and integrate knowledge, skills, theories and experience. Case study should be made an important pedagogy in the training of preservice teachers as it has been proven to promote critical thinking and decision making. It may help preservice teachers to develop decision-making skills crucial for effective teaching and also help to raise awareness of the relevance of certain theories and principles that can be applied to help them understand and solve complex and conflicting issues in the classroom or schools. Hence this paper explored the preservice teachers’ application of educational theories and principles in making decisions to solve complex classroom problems through a case based approach. This study involves semester three preservice teachers from three classes and content analysis was carried out to identify the use of different theories and principles in their case analysis reports. Students’ attitude was also measured in terms of value, motivation, self-confidence and enjoyable using a likert questionnaire adapted from Tappa (2002).

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1. Introduction

Linking theory to practice has been the primary concern of many teacher educators for decades. Smagorinsky, Cook, Moore, Jackson & Fry (2004) in their papers commented that traditional teacher preparation do not equip student teachers to deal with the complex reality of classroom life and the day-to-day ambiguities of the classroom. There exist a gap between the complex reality of classroom life and the theoretical principles taught in the curriculum. (Monroe, Blackwell & Pepper, 2010; Stensmo, 1999; Waghorn & Stevens, 1996; Shulman, 1992). Ramsey & Battersby (1988) mentioned that student teachers described themselves as having “developed a mind set which places theory in one compartment and practice in another.” Feimann-Nemser (2001) also lamented that “the school experiences are often limited, disconnected from university coursework and inconsistent.” This sentiment is also shared by Mitchel & Mueller (2005) where they stated that there exists a misalignment between what is taught in universities and what is practiced in schools. This gap between theory and practice does not only confine to teacher education but also confronts all profession – law, business and medicine.

Shulman stressed that teacher education programs should link theoretical concepts with practical, ‘real-world’ teaching settings. To narrow or bridge this gap, the use of case methods in teacher education has been promoted as a tool to help students to apply knowledge in the complex classrooms and to practice making good decisions with classroom situations. Heitzman (2008) says it’s a pedagogy that offers many strategies and opportunities for prospective teachers to gain insight into events that occur within the school and classroom. It would enable preservice teachers to analyze and think critically so that they can make decisions to solve potential problems faced in the classroom.

1.1. Theoretical Basis of Case Based Learning

Empirical studies have shown that case-based or case method teaching is an effective pedagogical approach adopted in fields such as business, education, law, medicine and e-learning (e.g. Angeli, 2004; Choi & Lee, 2008; Shulman, 1992). Case studies have been widely used as a teaching tool in teacher education (Shulman, 1992) to help prospective teachers gain a deeper understanding of educational theories and principles and learn how to apply these theories to situations they may face in the classroom. Merseth (1996) has outlined the uses of cases as exemplars to illustrate a model, theory or instructional technique or to showcase best practices; cases used to promote decision making and problem solving skills, and cases used to stimulate personal reflection.

Lately with the development of information technology and e-learning programs, cases are popularly used in online learning environment to support the teaching and learning process. As with text based cases, online cases allowed students to analyze and address professional problems through exploring real teaching tasks in a web-based, case-based learning environment. It has also been shown to increase transfer of learning from theory to practice and construct new meaning and content knowledge ((Zeng & Blasi, 2010, Angeli, 2004).

Building on the notion of social constructivism by Vygotsky, case-based or case method learning indeed represents a paradigm shift towards a more active, collaborative and inquiry-based approach to teacher education. Case-based learning promote active, self directed learning (Perkins, 1991) through the process of applying theoretical knowledge to classroom scenarios in ways that can encourage and stimulate problem-solving, critical thinking, and decision making. As such, case-based learning ties in with the principles of social constructivism. A constructive approach to teacher education involves teachers and students constructing meaning out of cases through active participation and interaction.

Teaching cases are actually “narratives” of accumulated experiences of experienced educators. Bruner, 1986 introduced "narrative psychology" which refers to the "storied nature of human conduct" (Sarbin, 1986)--how human beings deal with experience by constructing stories and listening to the stories of others. Psychologists believed that stories, rather than logical arguments, are the vehicle by which meaning is communicated. A case has a narrative/story detailing a set of events that unfolds over time in a particular place (Shulman, 1992,p21). It therefore has two important features which are useful for learning. Their status as narratives and their contextualization in
Narrative forms of cases engage our attention, retain in the memory easily and capture our interest and commitment. Thus cases can be engaging and enriching. It helps to stimulate higher order thinking like critical and analytical thinking, problem solve and helps in decision making. Cases can be used to link theoretical principles to practice, enable students to “think like a teacher” and help to create visions and images of future practices in the real classroom (Shulman, 1992).

Bearing these benefits of case based learning in mind, elementary pre service teachers in one teacher training institute in Malaysia embarked on a case based approach to classroom and behavior management course. These preservice teachers were in semester three and they spent a total of 15 weeks on this course EDU 3104 Classroom and Behavior Management (CBM). Topics covered in this course involves:

- Primary classroom management- concept of classroom management; characteristics of effective teachers
- Role of teachers in classroom management – conducive learning environment; management of resources and assessment in the classroom; building teacher and pupil relationship
- Models of discipline management in the classroom.
- Misbehavior and discipline problem in the classroom
- Management of discipline problem in the classroom.
- Classroom management for children with special needs.
- Action plan for effective classroom management

For tutorial activities short cases were given to students to practice and were carried out once a week for an hour. No marks were awarded for tutorial activities.

1.2. Objectives of study

The objectives of this study are:

- To study the use of educational theories and models by preservice teachers to solve classroom management cases.
- To explore attitudes of preservice teachers using a case based approach in terms of value, enjoyment, self confidence and motivation.

2. Methodology

For the above mentioned course, the preservice teachers have to do an assignment besides sitting for an examination at the end of the semester. The assignment given was based on classroom cases taken from Thaver & Tan (2004). Permission to use these cases was obtained from the authors. The preservice teachers were given two weeks to do this assignment. They were required to submit a report of the case analysis. In addition the report was also presented to the whole class with questions and answers at the end of the presentation.

Seven cases were given to the preservice teachers and they were allowed to choose the cases that interest them and it was made clearly to them that there should not be two groups doing the same case for each class. They were told to read discipline models as stated in the proforma and to do the necessary reference. No input was given for this topic on discipline models.

There were a total of 15 reports from the three classes and it was found that out of the 15 reports, there were three similar cases picked by all three classes. Content analysis was done on nine case analysis reports altogether written by three groups, one case each from the three classes. This paper only discussed the analysis for three reports based on one similar case (Pupil A).
There are many ways to do case analysis (Kauffman et al., 2006; Thaver & Tan, 2004; Thompson & Strickland, 2003; Galloway, D., 1976); and after considering all viewpoints, this paper chose the following model. With each case, the preservice teachers are expected to identify the issues, consider all perspectives and identify relevant educational theories and knowledge when considering possible actions or making decisions to help solve the issue/s. One specific question the preservice teachers have to answer is, “If you were his form teacher, what are some strategies you would adopt to help Pupil A in his work, in managing himself and in relating to his peers”.

At the end of 15 weeks, a 40 item questionnaire was administered to explore the preservice teachers’ attitude towards this classroom and behavior management (CBM) course. This questionnaire was adopted from Tappa’s (2002), inventory measuring attitude towards Mathematics. It was adapted with relevant changes made to measure their attitude towards this CBM course. This inventory was chosen because the components involved (value, self confidence, motivation and enjoyment) deemed to meet the objective of this study. Reliability alpha was found to be 0.81. The preservice teachers were given twenty minutes to answer the items in the questionnaire.

3. Analysis and Discussion

3.1. Preservice teachers’ case analysis

3.1.1. Case 1 – Pupil A (Refer to appendix)

- A Psychological Analysis

Pupil A’s behavior was analyzed by preservice teachers in terms of Maslow’s hierarchy of needs. Maslow introduced a hierarchical order of needs from the most basic or lower level needs progressing to higher order needs. According to Maslow, individuals must meet the needs at the lower levels of the hierarchy before they can successfully be motivated to tackle the next levels. The lowest four levels represent deficiency needs, and the upper three levels represent growth needs. Deficiency needs include physiological, safety, love and belonging and self worth and self esteem. Growth needs include aesthetic and self actualization needs.

With both parents working, Pupil A is totally left to care takers before and after school. He lacks the love and attention from his parents as can be seen from his constant interruption of his mother’s conversation over the phone. Being sent to child care centers, Pupil A doesn’t feel a sense of belonging to his own family. He dreads waking up and getting dressed for school and always make a fuss during dinner time. When he didn’t get the teacher’s attention, he turned aggressive and threw a ruler at the teacher.

It was also mentioned in the preservice teachers’ report that pupils A’s parents should realize that Pupil A, as a young child, needs love and a sense of belonging. Love and a sense of belonging are two important human requirements in Maslow’s hierarchy of human needs. If these are lacking, according to Maslow, a child will concentrate all efforts on the satisfaction of the lowest order needs that remains unfulfilled. The preservice teachers felt that until and unless his needs for love and belonging are sufficiently fulfilled, Pupil A will always seek out these needs in undesirable ways like disrupting the class or the mother’s conversation over the phone.

The preservice teachers also commented that since pupil A’s needs are not met this has affected his performance in class causing the teacher to label him as having serious learning difficulties. To add more salt to injury, Pupil A’s mother even allowed the teacher to punish him if he misbehaved. It is definitely a blow to his self esteem which is the fourth level of Maslow’s hierarchical needs. It was also quoted in the analysis report that possible causes of Pupil’s A aggressive and antisocial behavior can be due to parental rejection or low level parental expectation and supervision.

- A Behavioral Analysis of Pupil A

Another analysis from the behaviorist point of view was also detected from the preservice teachers’ analysis. It was suggested that positive reinforcers (Skinner’s behavior modification model) be used to reinforce suitable and
positive behavior. If Pupil A’s behavior improved, praises and encouragement would be given so that the good behavior persists but on the other hand, if Pupil A misbehaved, punishment can be given to deter, weaken or reduce the misbehavior from being repeated. In this behavior modification plan, any appropriate behavior would be given reinforcement. Secondly using rules and prompts to cue appropriate behavior and if possible ignore minor disruptions. It was suggested by the preservice teachers that teachers should have a private one-on-one conference with Pupil A and solicit his help in running errands for teachers or letting him to be the group leader from time to time. This would help to build up his self esteem.

It was also recommended that teachers not only seek meetings with parents when the child misbehave but also when the teacher has evidence that a positive change has occurred in Pupil’s A academic and social behavior.

- Classroom discipline models.

The three groups’ analysis all preferred to use Canter’s Assertive model with Pupil A’s case even though they are a few models they can choose from. The other discipline models mentioned in the proforma are Skinner’s reinforcement model, Dreiker’s Logical Consequences and Glasser’s Choice therapy. The preservice teachers prefer an assertive style of managing behavioral problems in the classroom where teachers have a right to set rules that will be strictly enforced. Canter’s model maintains that the key to this technique is catching students being "good,” recognizing and supporting them when they behave appropriately, and on a consistent basis letting them know you like what they are doing. For Canter, students obey the rules because they understand the consequences of breaking the rules. Assertive discipline in some form is likely the most widely used discipline plan in schools. (Kizlik, 2011).

It was also suggested that teachers come up with a discipline plan with rules and consequences spelt out clearly to students and parents. Thus when a teacher calls a parent there should be no surprises. This discipline plan should be carried out fairly and consistently. Other classroom management technique suggested by the preservice teachers involves Pupil A be seated in front so that he is not easily distracted by his friends sitting at the back and teacher can easily check Pupil’s A learning progress.

- Pedagogical skills

Other suggestions given in the analysis report involves pedagogical skills like forming group work as pupils in groups tend to bring out good behavior in other individuals. The teacher will give simple tasks and instruction so that he can understand what is required. Preparing activities that suit Pupil A’s interest might also help to reduce misbehavior in the classroom. He is keen in Physical Education (PE) thus the teacher should try to incorporate kinesthetic activities in the classroom and involving Pupil A actively in class. This would in a way help to improve his self esteem as he would be able to do something that he likes. It was also suggested that the teacher should enlist the Physical Education teacher to help out in improving Pupil A’s potential in sports. The preservice teachers also suggested using video clips to show sports competition/tournament so as to develop Pupil A’s interest. It was also recommended soliciting pupil A’s peers in helping out to manage his work and behavior. They mentioned introducing ‘buddy system” so that his peers can help and encourage Pupil A.

From the above analysis, the preservice teachers were able to use psychological, behavioral, pedagogical and classroom management theories and models in solving Pupil A’s case. The significance of this analysis shows that preservice teachers are able to apply theories in solving behavioral problems in the classroom and thus helping and training them to make decisions on their own when they encounter problems in the classroom.

Three preservice teachers were asked about their reaction towards this Classroom and Behavior management course through email and the following is one of the responses obtained which supports the above discussion.

A preservice teacher’s reply,
“The assignment also helped to strengthen our mind while we have to face these kind of students in our future days. At least we have little concept about them. We won’t be nervous in facing them.”

3.2. Analysis of Attitude towards Classroom and Behavior Management (CBM) unit.

As mentioned above a questionnaire was given to preservice teachers at the end of the semester. This inventory measured the preservice teachers’ attitude in terms of self-confidence, motivation, enjoyment and value. It was adapted from Tappa’s (2002) inventory as the components are very relevant to the objective of this study. Thus it was modified to suit this study and students were given 20 minutes to answer the questionnaire. Permission was also granted by the author of this inventory.

The confidence component measure the students’ confidence and self concept of their ability to handle classroom and behaviour management problems; value measures the students’ beliefs on the usefulness, relevance and worth of studying CBM in their life as teachers; enjoyment measures the degree to which students enjoy studying this CBM unit. Lastly the motivation component indicates their interest in CBM unit and their desire to pursue more studies/knowledge in CBM issues.

A total of 71 preservice teachers answered this questionnaire and it was statistically analyzed using SPSS version 14. A high internal consistency was achieved at a value of 0.81.

Of utmost importance to the preservice teachers is value with a mean of 3.77 followed closely by enjoyment (3.30). This shows that the preservice teachers placed great importance to the usefulness and relevance of this CBM unit in their life now as trainee teachers and in the future as a teachers in the classroom. Most of them indicated that they want to develop their classroom management skills (item 2, mean = 4.15) as they felt that CBM skills are important to them in their everyday life as teachers (item 5, mean = 4.01).

“I learnt the proper ways to solve classroom discipline and problems. Before, I wasn't confident while handling a class during SBE programme. I didn’t set rules and procedures while entering the class and being too nice to them and the class ended up uncontrolled. I was quite disappointed with myself because I found that it's not so easy to handle a class as what others think. From CBM, I learnt that we as teachers, need to be assertive while facing the students at the beginning. I realized the importance of enforcing rules and procedures with the students and of course to reach agreement with them”.

Under the enjoyment component, the preservice teachers said that they got a great deal of satisfaction out of solving classroom management problems (item 3, mean = 3.75) and they were comfortable expressing their own ideas on how to look for solutions to a difficult problem in CBM (item 37, mean = 3.55). They also enjoyed this unit and when one student in her email said that the case based approach makes the lesson and assignment more interesting as they are working out classroom problems which they might face in the real classroom.

The third important component to the preservice teachers was motivation (mean=3.26). They mentioned that they were willing to take more than the required amount of hours in the CBM unit (item 33, mean = 3. 44) and the challenge of CBM unit appeals to them (item 34, mean=3.35) One preservice teacher’s reply was,

“There is still a lot I need to learn in order to manage classroom and students' behaviour. Normally it's easier to say than done. I am looking forward for the practical training so that I can gain experiences and learn from mistakes”.

The least important component for the preservice teachers is self confidence (mean=3.20). In spite of that they were comfortable with this CBM unit and they were not always under a terrible strain in the CBM class. A reply from one of the preservice teachers’ was,
“During the learning process, we were to solve a real situation or a situation that is most likely to happen in a classroom. It is very fun to solve situations like that. This CBM course gave myself a preparation before enter the class to teach. Though I know it would be more complicated and harder to manage a classroom in real life, this CBM course have made me more confident in solving classroom behaviour problems”.

The self-confidence component was significantly lower than motivation and this could be due to the inventory having more negative statements than the other three components. Thus future use of this instrument has to look into the number of negative statements being even out for each component.

4. Conclusion

As can be seen from the pre-service teachers’ email replies they are more motivated and value the importance of this course to them in their future occupation even though their self-confidence wasn’t very strong. This could be due to the fact that they spent only a week in schools for the last two semesters where they carried out school-based experience. They have not actually done any practicum for a longer period of time. This study cannot confirm whether this case method has made them better problem solvers and critical thinkers as there are multiple perspectives to understanding and solving a case. Different principles and concepts were used by the pre-service teachers to solve the same case and thus analyzing cases can actually help to promote flexible knowledge building. This is in accordance with Spiro et al’s (1992) theory of cognitive flexibility, and that is, the ability to spontaneously restructure one's knowledge, in many ways, in adaptive response to radically changing situational demands. Through this process, students can develop better understanding of important elements of conceptual complexity, use acquired concepts for reasoning and inference and flexibly apply conceptual knowledge to new situations.

By using a case based approach to teaching and learning classroom management courses, pre-service teachers have shown to have the ability to apply theoretical knowledge in helping them understand and solve discipline issues. A number of psychological and behavioral theories were applied to help understand and figure out the issue and to make decisions or suggestions to help solve the issue concerned. The pre-service teachers’ replies showed that this case based approach has indeed enlightened the pre-service teachers to the complex nature of teaching and prepared them to face difficult situations in the real classrooms. Case methods are expected to be more engaging, more likely to bridge the vast chasm between principle and practice, and more likely to help neophytes to learn to “think like a teacher” (Kleinfeld, 1992; Shulman, 1992). It helps pre-service teachers to think about educational dilemmas, gather information, applying the information or theories and construct imaginative solutions for action. But cases are messy as there are no one right answer. Therefore cases are suitable for inducting pre-service teachers into the teaching classroom where things are unpredictable and problems are varied and ill-structured. Case methods can stimulate and simulate thinking in the real classroom thus making it a more preferable pedagogy for teacher education than didactic pedagogies. Case based approach is one good way of presenting students or pre-service teachers with some aspect of real-life scenario through which they can apply and integrate theories, knowledge and skills to help them make decisions for effective teaching and managing the classroom.

Appendix A (Pupil A)

Pupil A is a 9-year old Chinese boy studying in Primary 3 in a neighbourhood school. He is the only child in his family. Both his parents work. His father left school when he was 14 years of age while his mother has merely primary school education. They communicate in Mandarin at home and are not able to help Pupil A with his school work. After school, pupil A attends a Before and After School Care Centre near his school until his parents pick him up after work. At home, he will not wake up, get dressed or come to the dining table without a fuss. During meals, he will fidget and squirm in his seat. When his mother is on the telephone, he will constantly interrupt her.

When he was four years old, pupil A went to the neighbourhood childcare centre. According to his mother, the teachers often made him play by himself in the corner of the room as he was very disruptive during lessons. He was
unable to sit still in his chair. He would wonder around the room, play with anything that took his fancy and would beat the other children if he did not get his way. After half a year, the school asked his mother to take him out of the school. She kept him at home for the rest of the year. When he turned five, she enrolled him in a PAP kindergarten but pulled him out again when the teachers complained that they were not able to control his behavior. He stayed at home again and was enrolled in another PAP kindergarten when he was six years old. He managed to complete the year because the Principal and teachers in the kindergarten empathized with him and really tried hard to help him.

Throughout his first two years in primary school, pupil A continued to display disruptive behavior. He could not sit still in his chair for more than a few minutes. He was constantly squirming and twisting in his seat. As a result, he would often fall off his chair. Sometimes he would also run out of the class suddenly. At other times, he would hide under the table and refuse to come out. He would often play with his stationery and make paper aeroplanes and throw them across the classroom. By the end of Primary 2, he still had difficulties reading and writing, and was lagging behind his classmates academically.

At the start of his Primary 3 year, his form teacher reported that pupil A had serious learning difficulties. He could not concentrate for any length of time and had problems following the lesson. While his teachers were teaching, pupil A would talk excessively and loudly. He also had a tendency of blurring out answers impulsively, often before his teachers had completed their questions. He also needed his teachers to be constantly by his side to explain the work that needed to be done. On one occasion, when he was unable to get the attention of one of his teachers, he resorted to throwing the ruler at the teacher. The teacher reprimanded him severely. When he did not appear remorseful, the teacher sent him to the discipline master.

Pupil A often did not complete the tasks given by his teachers. When he did, there would be many mistakes in his work. After numerous attempts at calling his home, his teachers finally managed to speak to his mother. His mother apologized profusely that she herself found it hard to get pupil A to do his work. She told the teacher to beat pupil A if he misbehaved.

In class, pupil A’s classmates disliked having him in their group as he would get whichever group he was in into trouble by talking loudly or destroying the materials given by the teacher for the task. At times, he would get angry and hurt his group members when they refused to let him touch the materials. He intimidated many of his classmates by pinching, hitting or scolding them. During recess, he would be involved in arguments as he could not wait for his turn to buy food and would always jump queue.

However, during Physical Education lessons, pupil A would be very popular among his classmates. Whenever there was a competition, his classmates would want him to be in their team. This was because he had very good strategies when it came to sports. Whoever had him in their team always seemed to win.

References


