

Promote Pre-Service Teachers' Professional Development by Analyzing the Critical Incidents in Teaching

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Received 22 September 2014; accepted 15 December 2014
Published online 26 January 2015

Abstract

Pre-service teachers would learn how to analyze three critical incidents in teaching in the class, and before and after class they are given a questionnaire designed with Likert five-level responses to seek their attitude towards the function of critical incidents, to see whether pre-service teachers can realize analyzing critical incidents is possible to promote their professional development. With the documentary analysis on three typical critical incident examples, the focus is to illustrate the relations between critical incidents and the teaching reflection on mainly four aspects: the reflection on personal practical theory, teaching methods, teaching practice and professional judgment. The result of the questionnaires further illustrate that pre-service teachers are able to develop the awareness of the functions of analyzing critical incidents as well as improve their reflective thinking so as to promote professional development.

Key words: Critical incidents; Pre-service teachers; Teaching reflective ability; Professional development

Xu, J. (2015). Promote Pre-Service Teachers' Professional Development by Analyzing the Critical Incidents in Teaching. *Higher Education of Social Science*, 8(1), 40-46. Available from: URL: <http://www.cscanada.net/index.php/hess/article/view/6211> DOI: <http://dx.doi.org/10.3968/6211>

INTRODUCTION

Reflective thinking ability is considered as one of the key competencies that promote professional development for

Primary and Secondary School Teachers (Professional Standards for Primary and Secondary School Teachers, 2012). Helping pre-service teachers to develop and form a habit of reflective thinking is one of the essential tasks in the teacher education. It is necessary to provide some opportunities and engage the pre-service teachers in the reflective practice by using different kinds of constructive ways, one of which is through analyzing critical incidents in teaching.

The incidents themselves are not critical, which basically derive from the ordinary incidents in teaching practice by the means of analyzing, judging and researching. After the teaching practice in the real teaching circumstance, pre-service teachers are able to use those specific cases happened during teaching to establish a new set of teaching philosophy, concept and behavior, better guiding their future teaching.

As the future teachers, it is quite reasonable for the pre-service teachers to learn how to concern for the teaching practice by analyzing the critical incidents. However, not all of them are familiar with critical incidents, as a result, it is rather necessary to know what critical incidents are, how to analyze them and what the functions of them are. Before becoming a real teacher, it would be much meaningful for pre-service teachers to learn to discover, analyze and even solve the teaching problems in the prospective teaching, which helps to lay a foundation for the future teaching practice and to make a preparation for the sustainable professional development.

1. WHAT ARE CRITICAL INCIDENTS IN TEACHING?

Critical incidents come from history where they referred to some events or situations which marked the significant turning points or change in the life of a person or an institution or in some social phenomenon (1993, p.24).

Goodson (1994) articulates that the behavior of the teachers relates closely with their life history and the experiences which they have encountered in their life history will gradually develop to influence deeply what they think and behave in the future. Critical incidents happen in teaching, reflecting some universal meaning that can drive teachers to rethink what's right or wrong and redo what is right. Critical incidents are popular in different fields such as astronomy, law and management. In teaching it means "a teacher's professional explanations to the ordinary events in the classroom teaching of the angle of value judgment" (Tripp, 2007, p.15). Unlike the gold along the sidewalk, incidents happen very often in the class without being observed by teachers or students. They are more likely to be "created", however, they are critical to some degree for the potential value.

They may be minor incidents that happen in the teacher's daily life, which is regarded as critical incidents based on the significance and the meaning that the teachers attribute to them (Angelides, 2001). Hole and McEntee (1999) elaborated that critical incidents could be thought of as everyday events encountered by the teachers in their practice that made them question the decision that had been made and discussing and writing about them could be used to foster teacher professional development.

2. RESEARCH DESIGN

Woods (1993) declared that critical incidents might hinder or promote teachers' professional development, which depended on the teachers' attitude towards them and the decision they made when the teachers encountered them. That is to say the attitude plays an important role when encountering, thinking and analyzing critical incidents in teaching. It would be necessary to arouse pre-service teachers' awareness, so that they are able to realize the functions of analyzing critical incidents.

The aim of the research is to find out whether teachers are able to promote their professional development by analyzing critical incidents in teaching. The research procedures go as follows: a) Do a survey before class and show three examples which are typical but common phenomenon in the class; b) Finish a questionnaire to see what is the attitude towards the functions of analyzing critical incidents. The questionnaires are designed by using a Likert Scale, including six questions (Table 1) before class and eight questions (Table 2) after class. The responses are designed along a typical five-level item from "strongly agree" to "strongly disagree".

The participants are 85 pre-service teachers who major in English Education in a normal college from two classes. They have finished their eight-week practice in primary schools or middle schools. It is absolutely a new try for them to rethink some critical incidents that

happened during their teaching practice. It is not only a new exploration for them to record the classroom teaching in the forms of the critical incidents, but also a new way for them to apply the professional knowledge to analyze the incidents.

3. ANALYZE CRITICAL INCIDENTS IN TEACHING

Show the class the following three typical but commonly-happen incidents and get them to have a discussion first. Some questions are given to help them to think:

- (a) Is it common to encounter the incident in teaching?
- (b) Does it arouse your attention to think and analyze the underlying meaning in a theoretical way?
- (c) What can you learn from the incidents?

3.1 The Critical Incident One: Finishing the Homework

Today John did not finish his homework again. He needed to be taught to learn to finish his homework on time.

It is such a common phenomenon that almost all the teachers would encounter during their classroom teaching. In the incident recorded, it is obvious that the teacher takes it for granted that John has to finish his homework. The reason why the teacher takes such attitudes towards John is that a personal theory dominates the teacher's teaching behavior unconsciously. The theory is reflected in the incident that every student is obliged to finish the homework for no reasons. The theory takes a direct and significant effect on the teachers' teaching behavior as a personal teaching notion (Tripp, 2007, pp.64-65).

Dominated by the particular notion, the majority of the teachers tend to compel the students to complete their assignments by exercising the teaching power. However, the extreme approach only takes the temporary solution to the problem. The students are likely to take negative measures against the teacher's authority. For instance, they would lose their interest in study and just palter with their homework, which has a harmful impact on the students' psychological health.

After the analysis of the critical incident, it is more obvious for the pre-service teachers to discover the fact that the personal practical theory guides the teaching behavior directly and affects the students indirectly. Based on this result, the pre-service teachers or teachers can set a stage to better have a further academic doubt on the problem. They could focus on analyzing the reason why John does not always finish the homework instead of on the phenomenon that John does not finish his homework again (Tripp, 2007, pp.26-27). In other words, the deeper analysis creates the necessary basis for the teachers to see through the appearance to perceive the essence of the critical incidents. Thus the approach provides the best breakthrough point for the teachers themselves to study

and reflect over their personal practical theory.

To answer the question "Why does not John finish his homework", the teachers should consider it from at least three aspects: first think over and explain the reason why John has to complete his assignments, secondly analyze John's attitudes towards the study and the homework, and finally reflect on whether the requirements of the homework are suitable for John. By means of such further analysis, the teachers are able to objectively discover a fact that it is not realistic for all the students to complete their assignments (Tripp, 2007, p.27). From this point of view, the best solution to the problem is not to force John to finish his homework, because it is an unreasonable and unpractical method. What the teacher has to do is to strike a proper balance between the personal theories and the teaching behaviors, and to adopt other effective ways to stimulate John's passion for learning.

3.2 The Critical Incident Two: Try to Settle Down the Students I

This was my first class as a teacher. First I stopped at the door of the classroom, trying my best to keep a calm state of mind towards the great noise from the crowd. After a few minutes, I walked into the classroom. Then several students turned back to glance at me, and continued talking, louder this time. I kept on reminding myself to act more confidently and to show my authority as a teacher.

"Now, everyone", I shouted as loudly as I could, "Be quite!"

Now more students turned back and watched me curiously.

"Just keep quite, everyone!" I shouted again.

"No, that is not interesting at all!" A voice came from the behind. The rest of the students began to snicker stealthily.

It almost drove me to be crazy! Anyway, I had to settle them down ...

3.3 The Critical Incident Two: Try to Settle Down the Students II

A teacher walked into a noisy classroom, and was ready to begin class.

The teacher: Rick, are you talking?

Rick: No, it is not me.

The teacher: Then who is still talking loudly?

The teacher withered the noisy students with a glance. The whole class calmed down immediately, watching both the teacher and Rick. It was extremely quiet.

The two typical critical incidents reflect two different methods for the management of the discipline in the ordinary class, one of which is applied by a new teacher and the other are by an experienced teacher. It is obvious that each of the teachers has his own teaching management system. Nevertheless, two different approaches would bring about two totally different results.

To handle the same teaching problem, the new teacher finds it extremely troublesome, while the experienced

teacher is able to deal with it effortlessly. The reason for this is that the new teacher has not yet developed an effective method for teaching management. As is shown in the critical incidents, the craft knowledge (Tripp, 2007, p.11) in his mind is only theoretical and abstract. For example, he tries to calm himself down, to be more confident, and to show his authority as a teacher, but actually he has no approach that really works. By contrast, the experienced teacher is very clear about the measures that he should take to solve the problem. He manages to control the discipline of the class by drawing the students' attention to the conversation between him and Rick. At the beginning of the class, he just asks his student Rick whether he should be responsible for the great noise in the class. The purpose of doing this is to attract others' attention, but not to make Rick embarrassed. As the noise is made by the whole class, Rick has a sound reason to rebut the teacher. Thus the teacher does not intend to blame or punish Rick. He just wants to warn the others in the class to stop talking. The result proves that the approach for the teaching management is effective and useful.

3.4 The Critical Incident Three: The Whole Class Burst Into Laughter

In a class, a student Troy said sometimes he dared not sleep at night in case there was something horrifying that might occur to him. His teacher then asked him curiously, "So how do deal with it? Do you sleep with your eyes open?" Out of the teacher's expectation, the whole class bursts into laughter suddenly. The teacher continued, "I am not kidding. One of my aunts always opens her eyes while sleeping." The class laughed even more loudly. "Yeah, that's true. One morning I took a cup of tea with her. Then I just found her lying in the bed, fixing her eyes on me, as if she were dead!" There was another burst of laughter among the students.

The critical incident happened among the students of 12 or 13 years old. When the students are expected to tell about their frightening experience, the incident took place in the class. In the first part of the critical incident, the students seem to laugh at teacher's words, but actually they make fun of Troy. Obviously, the laughter is not only an unfair verbal attack to Troy, but also discourages other students' enthusiasm to answer questions.

By analyzing the incident, it can be concluded that a teacher's behavior has a direct impact on the classroom teaching. In the critical incident, the laughter is resulted from the teacher's inadvisable question "So how do deal with it? Do you sleep with your eyes open?" To the teacher, it is a rather serious error in teaching practice (Tripp, 2007, p.150). However, the teacher realizes her error immediately and acts quickly: First she tries to make it clear that she is serious rather than make fun of Troy. Then she tells the students her aunt's story to transfer the students' laughter at Troy to the one at her aunt. Eventually she manages to help Troy get rid of the

embarrassment tactfully. With the professional experience and ability to make wise judgment, the teacher skillfully solves the teaching error and ensures the teaching goes on normally.

4. FINDINGS AND DISCUSSION

The results of two surveys are shown in Tables 1 & 2. Generally speaking, compared with Table 1, the pre-service teachers do realize the functions and importance of analyzing critical incidents in teaching, successfully improving their awareness of developing reflective thinking by analyzing three incidents.

Accordingly, over 80% of the surveyed pre-service teachers strongly believe that reflective ability is important for teaching. They keep the same opinion before and after class. None of them hold the opinion of “Neither agrees nor disagree” any more after the class. That’s to say, 100% of them agree or strongly agree with the statements listed in Table 1. 47% more of the pre-service teachers believe analyzing the critical incidents in teaching can help develop practical theory. 66% more of them do agree or

strongly agree that teaching methods are capable of being improved by this means. 60% of the participants strongly believe critical incidents can help develop teaching practice. As for professional judgment, 56.5% of them choose “strongly agree” and 43.5% agree. The number of the participants who strongly agree that analyzing critical incidents can help strengthen reflective ability covers 68.2%.

30% of the surveyed pre-service teachers think that analyzing critical incidents in teaching is time-consuming. 21.2% is keeping neutral attitude. 48% of them don’t agree. As for the difficulty, 57.6% of them believe that it is difficult to analyze the implied meaning and to find out the nature beyond the critical incidents. There are some reasons. First, pre-serve teachers don’t have enough theoretical knowledge to help analyzing the incidents deeply. Different types of different incidents need different teaching theories. Secondly, some incidents seem very common and simple, but it is not easy to see the implied meaning and value at the first sight. It takes time to practice analyzing. Thirdly, 45 minutes is not a long time to make all the students understand the way of

analyzing the incidents.

Table 1
Results of the Questionnaire Before Class (Participants: 85)

Statement	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
1. Reflective ability is important to teach.	70(82.4%)	15(17.6%)	0	0	0
2. Analyzing critical incidents can help develop practical theory.	12(14.1%)	33(38.8%)	35(41.2%)	5(5.9%)	0
3. Analyzing critical incidents can help improve teaching methods.	5(5.9%)	24(28.2%)	47(55.3%)	9(10.6%)	0
4. Analyzing critical incidents can help promote teaching practice.	9(10.6%)	36(42.4%)	38(44.7%)	2(2.3%)	0
5. Analyzing critical incidents enhance the professional judgment.	8(9.4%)	41(48.2%)	40(47.2%)	6(7.2%)	0
6. Analyzing critical incidents can help develop reflective thinking.	20(23.5%)	46(54.1%)	19(22.4%)	0	0

Table 2
The Results of the Questionnaire After Class (Participants: 85)

Statement	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
1. Reflective ability is important to teaching.	70(82.4%)	15(17.6%)	0	0	0
2. Analyzing critical incidents can help develop practical theory.	49(57.6%)	36(42.4%)	0	0	0
3. Analyzing critical incidents can help improve teaching methods.	47(55.3%)	38(44.7%)	0	0	0
4. Analyzing critical incidents can help promote teaching practice.	51(60%)	34(40%)	0	0	0
5. Analyzing critical incidents can help enhance professional judgment.	48(56.5%)	37(43.5%)	0	0	0
6. Analyzing critical incidents can help develop reflective thinking.	58(68.2%)	27(31.8%)	0	0	0
7. Analyzing critical incidents are time-consuming.	12(14.1%)	14(16.5%)	18(21.2%)	25(29.4%)	16(18.8%)

8. Analyzing critical incidents are difficult. 20(23.5%) 29(34.1%) background of ordinary teaching practice (Deng & Cheng, 2008). Therefore, the critical incidents, which root in the daily teaching practice, help to create an effective teaching environment for the teachers to constantly discover, analyze, research and even work out the practical problems during the teaching and education.

4.1 Critical Incidents in Teaching Develop Pre-Service Teachers' Practical Theory

As is indicated above in Incident One, by analyzing the critical incidents, the pre-service teachers can combine the practical theory with the teaching practice effectively. What's more, they can directly apply the academic theories to guide the teaching practice. Therefore, the analysis of the critical incidents helps to develop the personal practical theory to be more practical and systematic, and to improve the teachers' individual ability of the problems during the real teaching.

Personal practical theory refers to a teacher's various opinions and ideas towards teaching. The theories are associated with the teacher's past experience, the current ideas on personal teaching and the expectations of the future attitudes and actions during the teaching (Butt, 1991). The pre-service teachers are able to form and develop a set of personal teaching theories by four years of theoretical attainments in class and teaching practice after school. However, those personal theories have not yet been proved to be true and have not been classified systematically. In addition, it is likely that pre-service teachers would apply the theories without any "consciousness", which is known as "unconscious theory" (Li, 2002). That is, they manage to use the personal theories in the classroom teaching, but they fail to realize them to which they have applied, fail to know whether the theories are used wisely or fail to describe the unconscious theory into the rigorous words. Therefore, after the pre-service teachers take up the teaching, their classroom teaching is probably dominated just by the unconscious and unsystematic personal theories. It is rather difficult for them to have a further reflection and analysis on their classroom teaching without the help of the scientific and systematic theories.

Nevertheless, the records and the collections of the critical incidents offer a unique environment for pre-service teachers to make the professional analysis and summary. With the help of the records, they are able to have a clearer review of the whole teaching procedures, which help them to find the breakthrough point to effectively integrate the theory with the teaching practice.

4.2 Critical incidents in Teaching Improve Pre-Service Teachers' Teaching Methods

After analyzing the Incidents Two, the new teacher is able to take a reflection on his ineffective ways for the teaching management and to be inspired by the experienced teacher's teaching method. Therefore, the analysis and the study of the critical incidents are beneficial for the pre-service teachers to promote their individual teaching methods.

One of the effective ways to improve the teachers' teaching methods is to set the educational research in the

Generally the pre-service teachers have not formed a set of stable individual teaching methods based on a great deal of teaching practice. However, the analysis and the study of the incidents can compensate for the lack of experience in classroom teaching. By means of analyzing the critical incidents recorded by others or by themselves, the pre-service teachers are able to learn from or draw a lesson from the experienced teachers indirectly. Meanwhile, compared to others' teaching methods, they can learn from others' strengths, overcome their own shortcomings and gradually develop their own individual teaching methods.

4.3 Critical Incidents in Teaching Promote Pre-Service Teachers' Teaching Practice

The third example reveals the particular procedure to solve the problems during the real teaching practice. The reflection on the critical incidents helps the teachers to know more about their teaching behavior, and to find out how the teaching behavior influences the whole teaching process. To the pre-service teachers, this approach can most help them to better understand what goes on in the class, the reason for the problem, and what measures the teacher should take to solve the problem. With the professional understanding of the teaching practice, they are able to further prove if they have made the wise judgment in teaching and to learn from the past. Therefore, the pre-service teachers can get the more theoretical and academic practical conclusion (David Tripp, 2007, p.153) by analyzing the critical incidents, which are beneficial to their teaching practice in the future.

The teaching practice refers to a series of a teacher's teaching behavior during the ordinary classroom teaching (Feng, 2007). The reflection on teaching is an essential precondition and a professional basis guiding the further teaching practice (Tripp, 2007, p.12). It not only helps the teachers to strengthen the understanding towards their teaching behavior, but also helps them to perceive how their own teaching behavior influences the whole teaching process.

As the critical incidents truthfully record what goes on in the class, the combination of critical incidents and the teaching practice is to associate the reflection on the past practical teaching with the individual further teaching practice. With particular detailed and systematic features (Tripp, 2007, p.42), critical incidents help to restore a realistic teaching situation for the teachers to reflect on the teaching practice. Such effective conditions can never be created only by the teacher's memory of the past classroom teaching.

Owing to the specific characteristics of the critical incidents, the pre-service teachers, who have relatively limited opportunities for teaching practice, are able to make full use of their own critical incidents to set up a stage for self-analysis and self-reflection. In addition, they can take other teachers' critical incidents as the original material to analyze the teaching practice indirectly with an observer status. In this way, the pre-service teachers are able to apply professional knowledge to describe, understand, explain and reflect on the teaching practice from the academic point of view. Therefore, the analysis of critical incidents helps to develop and improve the teaching recollection ability in the teaching practice.

4.4 Critical Incidents in Teaching Enhance the Professional Judgment

The professional judgment is a kind of professional hypothesis in the classroom teaching, and it is closely related to the individual reflection, analysis and opinions about the critical incidents (Tripp, 2007, p.148). Thus, by analyzing and reflecting over the critical incidents, the teachers are able to better enhance their professional judgment in teaching.

The traditional Chinese education for the pre-service teachers primarily focuses on developing the students' explicit teaching skill. As a result, few of the teachers perceive the significance of making the professional judgment in the teaching practice, and even fewer realize the direct impact of the judgment on the students (Wang & Cui, 2003). Therefore, after becoming the in-service teachers, the majority of the pre-service teachers find it rather difficult to make the correct judgment under the situation without enough related knowledge or the "right answer".

To better solve the existing drawback of the traditional education, the pre-service teachers can improve their comprehension ability towards the classroom teaching by means of analyzing the various critical incidents in four years of study. The purpose of this is to accumulate enough experience for the future teaching practice. With the improvement of the comprehension ability, they are able to accurately understand their teaching theories, teaching methods, and teaching practice. What's more, it helps to lay a theoretical basis for making the correct judgment during the teaching. In the view of Tripp (1993), whether the incidents are critical depends on whether the teacher can excavate the underlying meaning of the incidents and make valuable judgment on the incidents. Especially he emphasizes that the teacher should learn to make the professional judgment and reflection on the critical incidents in the classroom practice, which can promote their professional development.

CONCLUSION

In the way of interpreting and analyzing the critical

incidents, pre-service teachers are capable of better reflecting over their practical theory, teaching methods, teaching practice, professional judgment, and building up their professional interpretation from the academic perspective and to know how to become reflective, and eventually promote their professional development (Figure 1).

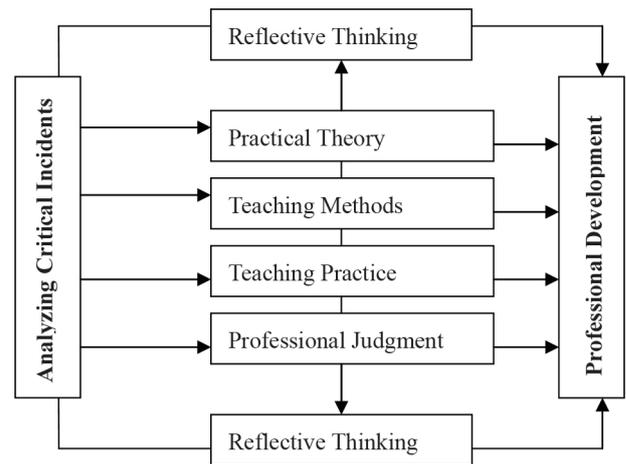


Figure 1
The Function of Analyzing Critical Incidents

The most important link in a teacher's professional development is a reflection on teaching, which is a result of a self-guide-discovery teaching method (Tripp, 2007, p.189). As future teachers, the pre-service teachers ought to have two basic qualifications: First, they should have the values of self-regulated learning and lifelong learning. In addition, they should have the full ability to reflect and further improve their educational behavior. By analyzing the effects of the teaching behavior, the pre-service teachers are able to improve those qualifications and improving their professional development. As the self-regulated and lifelong learners, the pre-service teachers ought to learn to analyze and reflect over the critical incidents from the academic point of view, and to develop skillful teaching reflective skill. As long as they achieve the improvement in teaching reflective ability, they can lay a solid foundation for future professional development.

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