

JOURNAL WRITING AS A TOOL FOR TEACHER TRAINEES' REFLECTION ON TEACHING

by

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ABSTRACT

Teacher trainees at Batu Lintang Teachers' College, Sarawak, Malaysia, keep daily or weekly journals during practicum for the purpose of reflecting on their teaching experiences. The present study was aimed at identifying the focus and the reflective categories and the levels of reflectivity of the teacher trainees. Journals of ten teacher trainees who volunteered to participate in this study were analysed using the grounded theory's strategy of the constant comparative method (Glaser & Strauss, 1967). The data were also deductively coded for Van Manen's (1977) levels of reflectivity. Through the inductive analysis of the data, categories for both the core categories of focus and reflection were generated. In the core category of focus, seven categories were discovered. They include self, student, teaching, school, supervision, learning and preparation. The categories that were generated from the data for the core category of reflection comprise of description, analysis and suggestion categories. The study also revealed that, while journal writing could be used as an effective tool for reflection, teacher trainees who participated in this study demonstrated only the first and the second levels of Van Manen's (1977) levels of reflectivity. They did not show any ability to reflect at the third level.

INTRODUCTION

Future teachers need to be able to use their minds, feelings and reasoning abilities to reflect about their classroom practices and the children's learning. They should be more than just technicians who carry out prescribed instructional strategies and content (Hoover, 1994). And, writing about teaching enables teachers to document and learn from their experiences (Holly & Mcloughlin, 1989). Teacher trainees, too, should be prepared to become self-directed educators who think and write about their teaching and they should be capable of overcoming problems related to their classroom experiences.

Teacher trainees undergoing training (from December 1994) at teacher colleges in Malaysia are clearly directed to keep journals throughout the practicum (Ministry of Education Malaysia, 1994). They are required to write their comments and opinions about events, problems, achievements, self or about areas of teaching that need to be given extra attention during their school-based experiences. Journal writing is aimed at helping teacher trainees document their reflections on their involvement at school, to reevaluate the duties and responsibilities that are carried out, to use it as a basis for follow-up actions, to enhance their sensitivity towards the pupils and the teachers' roles and as a means for discussion with their supervisors and their cooperating teachers.

Evidence is yet to be revealed about the actual focus and the extent of teacher trainees' reflective practice through journal writing in Malaysia. The current study was aimed exactly at addressing this concern.

AIMS OF THE STUDY

- (a) To investigate how teacher trainees use journal writing for the purpose of reflection on their teaching during practicum, that is, to explore the focus of their reflections in their journal entries, and
- (b) To examine the extent which teacher trainees reflect on their teaching through journal writing, that is,
 - i) To explore the reflective categories of the journal entries made by the teacher trainees, and
 - ii) To examine the reflection levels of the teacher trainees.

RESEARCH QUESTIONS

- 1. How do teacher trainees use journal writing for the purpose of reflecting on their teaching during practicum?
 - 1.1 What is the focus of teacher trainees' reflection in their journals?
- 2. To what extent do teacher trainees reflect in their journals?
 - 2.1 What are the reflective categories of the teacher trainees' journal entries?
 - 2.2 What are the reflection levels of the teacher trainees evident in their journal entries?

WRITING FOR REFLECTION

Reflection is a holistic problem solving process that involves intuition, emotion, and passion (Zeichner & Liston, 1996). It may not necessarily involve logical steps or procedures that need to be followed (ibid). Reflection requires "alert, careful, thorough, definite, and accurate" course of thoughts (Dewey, 1933, p.76). Writing for the purpose of reflection has been the emphases of the studies of Francis (1995), Hoover (1994), McAlpine (1992), Wibel (1991), Surbeck, Han and Moyer (1991), Holly (1989), Bolin (1988), Holly (1987), Zeichner and Liston (1987), Walker (1985) and Christensen (1981). These studies identified various forms of reflective writing aids. They include dossiers, verbatim transcriptions, logs, diaries, journals and portfolios.

THE PRACTICE OF JOURNAL WRITING

Surbeck, Han and Moyer, (1991) found that the student teachers' journal entries consisted of three main categories: (a) reaction, (b) elaboration and (c) contemplation. McAlpine (1992) describes how journal entries can function as professional conversations between student teachers and their supervisors. Student teachers use journals to "voice" their concerns and to question about their daily

encounters during practicum. McAlpine (1992) also provides three modes of writing - descriptive writing, cathartic writing and reflective writing. Hoover's (1994) study revealed that university preservice teachers focused their weekly journal writing on their disappointments and self-doubts during their practicum. Francis (1995), based on her study on Bachelor of Education preservice teachers at James Cook University in Australia, reported that beginning journal writers tend to write on issues that are related to their own interests and experiences until they discover the "actual issues" that should be addressed.

JOURNAL WRITING AND REFLECTION

Journal writing is known to aid reflection. Holly and Mcloughlin (1989) believe that journal writing is a useful tool for reflection, analysis and self-evaluation. Yinger and Clark (1981, cited in Surbeck, Han & Moyer, 1991) stress that journal writing provides opportunity for teacher trainees to integrate "course content, self-knowledge, and practical experiences with teaching and learning situations".

Journal writing increases self awareness and self-reliance among adult learners. It helps learners to be more independent. It allows adult learners to "reflect on their life experiences, contemplate future directions and come to trust more deeply their own answers" (Christensen, 1981, p.4). On the other hand, student teachers are able to deliberate about their teaching through reflective journals. Journal keeping practice also helps supervisors in monitoring and guiding student teachers in the process of learning to teach (Bolin, 1988). Holly (1989) explains that writing provides another way to make explicit our experiences and thinking selves. It also helps to document classroom events and situations in teaching so that the writer can re-read and reflect on it to understand the patterns and relationships between those experiences. Wibel (1991) describes journal writing as providing an environment that allows the author to express his or her thoughts freely without worrying about criticisms. It was also revealed that journal writing increases opportunities for discussions between student teachers and their supervisors who do not have enough time for oral interaction (McAlpine,1992). Hoover's (1994) study revealed that journal writing can be a very effective means for emotional expression and, if the tasks of writing journals are more focused, then student teachers will be able to deliberate more effectively about educational theories and their practices.

Surbeck, Han and Moyer (1991), and Hoover (1994) studied the reflective responses and levels of reflectivity of student teachers respectively. In their study, Surbeck and colleagues attempted to find strategies to assess the reflective journal of university student teachers by categorising the entries. Journals of ten student teachers were analysed to find out the extent of their reflection. Hoover (1994), in her study, conducted a document analysis of three forms of reflective writing assignments of two university student teachers during their teacher education practicum.

Categories of Reflective Responses

Surbeck and colleagues (1991) categorise student teachers' journal entries into: (a)reaction, (b) elaboration and (c) contemplation. **Reaction** category refers to responses related to feelings, concerns, reports or issues about classroom activities, environments, students, cooperating teachers, teaching partners, readings and so on (ibid). Subcategories of reaction include (i) positive feelings, (ii) negative feelings, (iii) report, (iv) personal concerns and (iv) issues (ibid).

Elaboration involves detailed description of initial reactions - feelings, concerns or situations - by providing explanation and examples. Subcategories of

elaboration are (i) concrete elaboration, (ii) comparative elaboration and (iii) generalised elaboration (ibid).

Contemplation includes initial reaction, elaboration and matters related to personal, professional and social/ethical issues (ibid). Three subcategories of contemplation are identified. First, the personal focus emphasises personal matters. Second, the professional focus emphasises opinions about children, teaching strategies, future plans, educational theories, problems and issues. Third, the social/ethical focus addresses social problems, ethical concerns and moral issues (ibid).

Levels of Reflectivity

Three levels of reflectivity (Van Manen, 1977) have been identified about how teachers deliberate about their teaching actions. **Technical competency** is the first level of reflectivity and it is concerned mainly with teachers' ability to apply appropriate teaching techniques in the classroom (Richert, 1992). A teacher operating within the technician mode may accept situations, problems, or issues as given and try to deal or overcome them (Zeichner & Liston, 1996).

The second level of reflectivity concerns the capability to analyse teaching decisions which are made, taking into account the belief that these actions are related to value commitments (Van Manen, 1977). "The focus is on an interpretive understanding both of the nature and quality of education experience, and of making practical choices" (ibid, pp. 226-227). The assumptions and beliefs related to the choices which are made will be clarified at this level.

The highest level of reflectivity, **critical reflection**, represents the ability to consider moral and ethical consequences of teaching actions (Zeichner & Liston, 1987). The emphasis here is the worthiness of the educational experiences and knowledge and whether the educational activities have really served human needs, justice and equality (ibid).

METHODOLOGY

This study employed a case study method. The current study was conducted at one particular setting; that was a teachers' college in Malaysia, involving a group of ten teacher trainees who were undergoing their final practicum. The content of their reflective journals that were written during their teaching practicum was examined in this study to identify their focus and reflective categories, and their levels of reflectivity.

Participants

The participants consist of ten teacher trainees who were undergoing one semester (18 weeks) school attachment or practicum programme. This was the teacher trainees' second and final practicum which needed to be completed in Semester 5.

Data Collection

Data were collected in the form of journals which were written by teacher trainees during their teaching practicum. With the consent of the participants, their journals were collected and photocopied by one of the supervisors who volunteered to coordinate the journal collecting process. The photocopied journals were then mailed

to the researcher for analysis, by the coordinator. The journals were collected near to the end of the practicum.

DATA ANALYSIS

Data in the form of journal entries were analysed using the grounded theory's strategy of the constant comparative method (Glaser & Strauss, 1967) to identify the focus and the reflective categories. The deductive coding approach was then used to analyse and code the journal entries for Van Manen's (1977) levels of reflectivity.

LIMITATIONS OF THE STUDY

The aims of this study also did not allow the researcher to use solely the grounded approach in analysing the data. As a consequence, only the focus and reflective categories of the teacher trainees were generated using this approach. The logical deductive approach of 'a priori' coding was used to analyse the data to determine the participants' levels of reflectivity. This was one of the limitations of the study.

FINDINGS

By constantly comparing and integrating the data with the emerging categories and by compiling, sorting and integrating the memos written constantly by the researcher, seven focus categories and three reflective categories were discovered in this study. As presented on Table 1, it was evident that teacher trainees focused on their self, students, teaching, school, supervision, learning and preparation in their journals.

Focus Categories

Self

Self confidence, commitment, health and personality were the main concerns when teacher trainees wrote about their 'self'. Believing in one's ability to change the students' discipline and attitudes was an important indicator of self confidence. The trainee's self confidence was also influenced by his or her theoretical knowledge about the subject or subjects that he or she was teaching.

Commitment was illustrated by their worries and concerns for the students' development, specifically their skills and knowledge. But health, as one trainee regretted, hindered her effort to teach and, thus, her commitment. Concerns about their *personalities*, such as not being able to be "serious" or "strict" with students who caused discipline problems in the class were also indicated under the self category.

Students

Teacher trainees wrote about their encounters with students of diverse abilities. They also had to teach students from different classes in various subjects. What actually had surprised them was the fact that some of the students had all the *abilities* (fast learners) but the others (slow learners) neither had the abilities to complete their learning tasks, nor *interested* in doing them. Trainees also wrote about students' *discipline* problems. *Prior knowledge and skills* of the students were also identified as other concerns of the trainees and were evident in the data. *Learning habits* of the students that were "learned" from their previous teachers were described by the trainees as hindering the students from learning from different teaching styles of the trainees.

Table 1. Focus Categories

Properties/dimensions	Categories	Subcategories
1. Self	1.1: Self-confidence	1.1.1: Anxiety/Lack theory knowledge
	1.2: Commitment	1.2.1: Worries about students
	1.3: Health	1.3.1: Unable to teach
	1.4: Personality	1.4.1: Not strict (stern)
2. Student	2.1: Diverse abilities	2.1.1: Fast learners
		2.1.2: Slow learners
	2.2: Discipline	2.2.1: 'Overactive'/Passive
		2.2.2: 'Lazy'/Unattentive
		2.2.3: Not cooperative
	2.3: Interest	2.3.1: Lack of interest
	2.4: Prior knowledge/skills	2.4.1: Lack 'group' skills
2.5: Learning habits	2.5.1: 'Learned' from previous teacher	
3. Teaching	3.1: Objectives	3.1.1: Achievement/failure
	3.2: Methods/Techniques	3.2.1: Appropriateness/Effectiveness
		3.3.1: Interesting/Students' involvement
	3.3: Activities	3.3.1: Interesting/Students' involvement
	3.4: Flow/Interruption	3.4.1: Time management
		3.4.2: Extended lessons
		3.4.3: Failure of printing machine
3.5: Classroom management	3.5.1: Clear instructions	
	3.5.2: Class control	
	3.5.3: Disciplining	
	3.5.4: Grouping	
3.6: Assessment	3.6.1: Test/Exercise/Homework	
3.7: Contingency	3.7.1: "Emergency lesson"	
4. School	4.1: Involvement	4.1.1: Programmes/Activities

	4.2: Cooperation	4.2.1: With other teachers
	4.3: Facilities	4.3.1: Narrow space for experiment
		4.3.2: Lack of apparatus
5. Supervision	5.1: Supervisors	5.1.1: Time for discussion
		5.1.2: Feedback on performance
	5.2: Cooperating teachers	5.2.1: Advisory role/guidance
6. Learning	6.1: Theory	6.1.1: 'Exposure'/College's role
	6.2: Input	6.2.1: Experienced teachers
		6.2.2: Other trainees
		6.2.3: Supervisors
		6.2.4: Cooperating teachers
	6.3: Discussion	6.3.1: Experienced teachers
		6.3.2: Other trainees
		6.3.3: Supervisors
		6.3.4: Cooperating teachers
	6.4: 'Questioning'	6.4.1: Experienced teachers
	6.5: Observation	6.5.1: Peer/Partner
		6.5.2: Experienced teachers
	6.6: Reading	6.6.1: Books
	6.7: Previous	6.7.1: The first practicum experience
7. Preparation	7.1: 'First-day'	7.1.1: Excitement/Anxiety experience
	7.2: 'Orientation'	7.2.1: Facilities/resources
	7.3: Introduction	7.3.1: To the teachers
		7.3.2: To the students
	7.4: Getting ready	7.4.1: Time-table
		7.4.2: Text/reference books

Teaching

In the teaching category, teacher trainees frequently wrote about the *flow* of their lessons, the achievement of learning and teaching *objectives*, the teaching *methods* and techniques, the learning *activities* and the *assessment* of students' learning and progress. About the flow of their teaching, they reflected on whether the lessons went on smoothly or interrupted. The achievement of the learning and teaching *objectives* was also affected by these interruptions. In the teaching *methods/techniques* category, trainees described the methods that they used and explained whether they were "smooth", suitable, effective or 'approved' by the cooperating teachers or the supervisors. Regarding learning *activities*, trainees wrote about the organisation of the activities and whether the students enjoyed them, showed any interest, participated or benefited from them. Trainees also reflected on the importance of the *assessment* of students' learning and their progress. This was obvious from their concerns about and efforts to ensure that students complete and hand-in their daily exercises and their homework.

Classroom management was the major concern of most of the trainees. It was also the main focus for comments of most of the supervisors and the cooperating teachers. Trainees wrote about confusing their students by not giving clear instructions. Class control was the major part of most teacher trainees' journal entries. This was a concern especially during questioning and answering sessions. *Contingency* was regarded as another important part of teaching.

School

The school category was made up of involvement and cooperation subcategories. The *involvement* subcategory describes trainees' participation in school programmes and activities and special occasions. The *cooperation* subcategory describes trainees' experiences in working with other teachers in schools. Another concern was about the *facility (space and apparatus)* for experimental activities. The failure of the *printing machine* was also a concern of the trainees.

Supervision

Supervision involves both practicum supervisors and cooperating teachers. Under this category, *feedback* and *discussion* were identified as main concerns of the teacher trainees. Trainees wanted to know more than about their achievement. They were also disappointed because supervisors did not allocate time for them to discuss about their weaknesses.

Learning

This category encompasses various means of teacher trainees' learning. Six subcategories were identified in this category. They were: theory, input, discussion, 'questioning', observation, reading and previous experience. Trainees reflected on the role of the college in providing adequate "exposure" to *theories* related to the teaching of particular subjects.

Teacher trainees also learned from experienced teachers in schools. They learned through *input* or information from experienced teachers, other teacher trainees, supervisors and cooperating teachers. Learning also occurred through *discussions* with experienced teachers, other teacher trainees, cooperating teachers and supervisors. By "*questioning*" experienced teachers and *reading* relevant books, trainees learned and gained better perspective about teaching. *Observing* experienced teachers' and other trainees' teaching was another means of learning about teaching. Trainees also recalled their *previous experiences* from their first practicum as part of the learning process.

Preparation

Teacher trainees wrote about their 'first-day' experiences, 'orientation', introduction and 'getting ready' as major part of their preparation. They described excitement and anxiety as their feelings on the first day. 'Orientation' to the school facilities and resources were also seen as important. Introduction to the teachers and students were identified as other subcategories. In the process of getting ready to teach, trainees focused on collecting the time-tables and finding text as well as reference books.

Reflective Categories

The following reflective categories and subcategories were generated from the teacher trainees' journal entries:

1. Description

This category includes (i) expression of personal feelings and concerns; (ii) description of situations and experiences and (iii) description of problems.

(i) Expression of personal feelings and concerns

Teacher trainees expressed their positive and negative feelings. These included satisfaction that the 'flow' of their teaching was smooth, that the learning and teaching objectives were achieved, that their teaching methods were effective and that their learning activities had increased students' interest. On the other hand, trainees were disappointed that their supervisors did not provide feedback about their weaknesses.

(ii) Description of situations and experiences

This subcategory consisted of explanation about school facilities and resources and their encounters with the students, supervisors and cooperating teachers. It also included description about their own teaching. This subcategory involved description of the *technical* part of these aspects further than the emotional expression or concerns. It included the teaching methods, techniques or activities that were used by the trainees.

(iii) Description of problems

Teacher trainees also described problems that they encountered with their students, supervisors, cooperating teachers, their teaching and the school in general. Trainees described their problem in "class control", "not being able to carry out lesson closure" and marking students' work. Trainees had problems in making sure that students handed in their class 'exercises' or homework.

2. Analysis

This subcategory contains explanation of feelings, situations, experiences, and problems. The form of analysis found in the data were: (i) contextual analysis and (ii) comparative analysis.

(i) *Contextual analysis*

This form of analysis was focused on a particular situation or problem. Trainees wrote about their problems with using a group approach. In their analyses, they explained why that problem might have occurred.

(ii) *'Comparative' analysis*

Comparison was made with other situations or previous experiences. Trainees compared their present experience with their experiences from their first practicum.

3. Suggestion

Suggestion subcategory comprised solutions to the problems that were already identified and analysed. It encompassed the improvement of personal characteristics, teaching performance and students' attitudes.

(i) *Personal improvement*

This involved the change of personal qualities. The need to be strict in class was emphasised by one trainee.

(ii) *Teaching Improvement*

Improvement of teaching involved changes in methods or techniques of teaching as well as the learning activities. Trainees suggested ways to improve their class control and students' discipline which were the major problems during their practicum.

(iii) *Student improvement*

Based on their experiences and the problems that they encountered with the students, trainees developed ideas about how to improve students' behaviours, attitudes and learning.

Table 2. Reflective Categories

Categories	Subcategories	Properties/Dimensions
1. Description	1.1: Expression of feelings	1.1.1: Positive feelings/concerns 1.1.2: Negative feelings

	1.2: Description of situations	1.2.1: Teaching methods/activities
		1.2.2: Students
		1.2.3: Supervisors
		1.2.4: Cooperating Teachers
	1.3: Description of problems	1.3.1: Class control
		1.3.2: Time management
		1.3.3: Students' homework
		1.3.4: Lack of stencil/apparatus
		1.3.5: Printing machine failure
2. Analysis	2.1: Contextual analysis	2.1.1: Particular situation/problem
		2.1.2: e.g. group approach
	2.2: 'Comparative' analysis	2.2.1: Previous experiences
		2.2.2: First practicum
3. Suggestion	3.1: Personal improvement	3.1.1: Personality/style
	3.2: Teaching improvement	3.2.1: Methods/activities
	3.3: Student improvement	3.3.1: Learning/attitude/behaviour

Reflection Level

The journal entries were coded for Van Manen's (1977) three levels of reflectivity. The frequency of the coded entries for each of the levels of reflectivity was determined. Table 3 clearly illustrates the frequency of coded entries of each of the levels of reflectivity that were evident in each subject's journal entries. Figure 1 shows that more coded entries were found for first level of reflectivity than the second level. About 92% of the entries coded consist of reflective entries at level one, while another 8% were coded for second level of reflectivity. There were only 22 coded entries for second level of reflectivity compared to 238 coded entries for the first level. None of the coded entries indicated reflection at the third level. This proved that most of the teacher trainees who participated in this study reflected only at the first

level of *technical competency* and the second level of *analysis of teaching decision*. And none of them reached the third level of *critical reflection*.

Table 3. Frequency of coded entries per reflection level per subject

Subject Number	The number of coded entries for each reflection level		Total Frequency
	Level 1	Level 2	
S1	50	2	52
S2	40	8	48
S3	9	6	15
S4	11	1	12
S5	8	1	9
S6	8	0	8
S7	8	1	9
S8	25	0	25
S9	59	0	59
S10	20	3	23
Total	238	22	260

DISCUSSION AND RECOMMENDATIONS

This study has explored how trainees in a teachers' college in Malaysia use their daily or weekly journals as tools to reflect on their teaching encounters during their teaching practicum at various schools. It has also examined the journal entries to determine the reflective level of each of the teacher trainees.

The findings on the focus of the trainees' reflection concurred with Loughran's (1996) findings in his study on his student teachers' dialogue journal writing practices during 'Teaching and Learning Class (TAL)'. Loughran (1996) found that student teachers wrote about issues related to their course and various concerns which included self, classroom teaching and learning. The current study has categorised the focus of the

teacher trainees' reflections into self, students, teaching, school, supervision, learning and preparation (1.1).

Further categorisation of the reflective entries revealed that teacher trainees were capable of describing and analysing personal feelings and concerns, situations and experiences and problems. These were in agreement with Surbeck, Han and Moyer's (1991) "reaction" category. The trainees were also able to suggest ways to change or improve their personal characteristics, their teaching methods or activities and students' behaviours or attitudes. But the teacher trainees' abilities to analyse situations and experiences were limited to comparison with their previous encounters as revealed by Surbeck and colleagues as the "comparative elaboration" subcategory. Also not evident in the data was the "contemplation" category as discovered by Surbeck, Han and Moyer (1991) in their studies. The trainees were not able to make any reference to the educational theories, philosophies, principles or issues. The trainees also were not addressing social and moral/ethical issues in reflecting on their teaching actions (2.1).

The study also revealed that teacher trainees reflect mostly at the first, "technical competency" level and partially at the second, "analysis of teaching decision" level. But there was no evidence to show that they reflect at the third, "critical reflection" level. They showed the ability to use suitable teaching methods or techniques to achieve teaching and learning objectives. They managed to develop and describe their own assumptions and beliefs; to analyse and make judgements about the choices that they made in their teaching efforts. But they were identified as not capable of taking into consideration moral and ethical outcomes of their teaching action. The consequences of their teaching actions to human needs, justice and equality were not thought through by the trainees (2.2).

RECOMMENDATIONS

1. Integrating Journal Writing Into the Course

By making journal writing practices an integral part of the teacher training programmes, teacher trainees can be trained to continuously reflect on their learning that may occur through several modes (Loughran, 1996). These include the classroom learning, 'micro-teaching', observation of teaching and school-based experiences. Teacher educators' roles would be to encourage rather than to force the teacher trainees to write about their learning throughout their course. The trainees should be allowed to write in whichever format they wish to follow.

2. Journal Writing Guidelines

Teacher educators should also rethink the journal writing guidelines provided in the practicum guidebook. The approach should be changed, from an emphasis on describing their teaching experiences and problems and making suggestions to improve their teaching, to an emphasis on examining and relating their teaching encounters in the "field" with educational philosophies, principles and theories that they have learned in the college classrooms.

3. Mentor System

The researcher suggests that the function of the existing tutorial system at Batu Lintang Teachers' College should be shifted towards professional development of the teacher trainees. It should be replaced with a mentor system. The mentors would

play their roles in guiding, supervising, monitoring and providing support to the trainees' development in terms of their pedagogical knowledge and skills. The teacher trainees should be developed to become reflective practitioners of their teaching through appropriate tasks and challenges. And the ongoing practice of journal writing provides a means to develop reflective ability among the teacher trainees. The mentors would be responsible for reading and providing comments and questions to probe teacher trainees' understanding of their learning experiences and to challenge their thinking (Loughran, 1996).

4. Class Discussions

Critical reflection can be fostered through class discussions (Wade, 1994). Wade (1994) believes that the process of discussion enables "learning from one's own and other's perspectives" (p. 240). In order to encourage critical reflection through class discussions, teacher educators should allow "critique of ideas and opinions while at the same time honoring students' perspectives as legitimate and valuable" (ibid). Trainees should be encouraged to "question the unexamined" and to think critically about their own learning experiences in the classroom (ibid). They may examine the classroom activities, the subjects that they learn and their friends' or even their lecturers' lessons. Equally important is to create the classroom environment that is supportive and respectful (ibid). Trainees should feel that their ideas are respected. Their ideas should be analysed and evaluated by their peers rather than devalued or criticised (ibid).

5. Written Case Analyses

Written case analyses are other means to identify multiple aspects of critical reflection - open-mindedness, responsibility and wholeheartedness (Harrington, Quinn-Leering & Hodson, 1996). Harrington and colleagues (1996) used the dilemma-based case approach to enable student teachers to identify and understand problematic events and to reflect on them. Student teachers were also able to reflect on the consequences of their actions and to "devise sensible, moral and educative ways of acting" (ibid, p. 26). Critical interpretive analyses of teacher trainees' written case analyses may provide information regarding various aspects of critical reflection.

FURTHER RESEARCH

The current study was undertaken with the hypothesis that journal writing is a useful tool for reflection. There is no evidence that shows if any research has been conducted involving teachers' college trainees and the benefits of journal writing as perceived by them. Therefore, the researcher recommends further research to explore teacher trainees' own perceptions about the benefits of writing journals.

Studies also need to be carried out to find out the problems encountered by teacher trainees in keeping regular journals because evidence in the current study revealed that, at certain stages, teacher trainees tend to lose the motivation or interest to keep on writing. Further studies should be conducted to find out the kind of problems that the trainees are facing and to explore if there are other related issues. Teacher trainees' perceptions should also be sought on how tutors, practicum supervisors and cooperating teachers might be able to help them overcome the problems.

Findings of this study showed that the trainees in the research group reflect most frequently at level one, less frequently at level two and never at level three. The researcher suggests that further research should be conducted to identify evidence

of trainees' readiness or their personal attitudes toward reflection which includes open-mindedness, responsibility and whole-heartedness (Dewey, 1933; Loughran, 1996).

Another question that needs to be answered is whether the teacher trainees actually reflect on their teaching. The researcher recommends further research to identify evidence of reflection and to analyse how reflection is developed and used over time (Loughran, 1996). This can be carried out by coding the journal entries for each of the five phases of the reflective cycle. These phases include suggestions, problem, hypothesis, reasoning and testing (Dewey, 1933; Loughran, 1996).

Other areas that need to be explored include whether cultural factors such as the habit of writing or keeping journals or diaries influences the 'end product' of their writing and the 'detection' of reflection by the researcher. The relationship between the skill or ability to write critically and creatively and the practice of journal writing for reflection is also another possible area for further research.

CONCLUSION

Writing journals during practicum enables teacher trainees to reflect on their teaching experiences. The present study began as an attempt to verify the above assumption. Specifically, the study was aimed at (a) exploring the focus and the reflective categories of the teacher trainees in their journals and (b) identifying the reflective levels of the teacher trainees. Ten teacher trainees volunteered to participate in this study. With the consent of the teacher trainees, journal entries made during their teaching practicum were collected and analysed.

The inductive approach of grounded theory analysis (Glaser & Strauss, 1967) and deductive coding were used to analyse the data. The constant comparative method generated both the focus categories (Table 1) and the reflective categories (Table 2). The journal entries were coded for Van Manen's (1977) levels of reflectivity to determine the reflection levels of the teacher trainees.

The findings showed that teacher trainees focused their reflections on self, students, teaching, school, supervision, learning and preparation. Their reflections could be categorised into description, analysis and suggestion. Evidence showed that the teacher trainees' reflections were congruent with Surbeck, Han and Moyer's (1991) "reaction" category and "comparative elaboration" subcategory, but there was no evidence of the "contemplation" category. Teacher trainees demonstrated reflective ability at the "technical competency" level and at the "analysis of teaching decision" level. But none of the trainees showed the ability to reflect at the "critical reflection" level.

Teacher trainees' ability to reflect can be further enhanced by implementing journal writing as an integral part of their teacher training programme. They should continuously reflect and write about their experiences and learning from various modes throughout their course. Appropriate training and support should be provided to teacher trainees, supervisors, tutors and cooperating teachers. Critical reflection abilities may be fostered through class discussions and written case analyses.

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