

10-2008

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Recommended Citation

Minott, M. A. (2008). Valli's Typology Of Reflection And The Analysis Of Pre-Service Teachers' Reflective Journals. *Australian Journal of Teacher Education*, 33(5).

<http://dx.doi.org/10.14221/ajte.2008v33n5.4>

This Journal Article is posted at Research Online.

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Valli's Typology Of Reflection And The Analysis Of Pre-Service Teachers' Reflective Journals

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Abstract: A study of pre-service teachers' use of reflective journaling was carried out. Participants were teachers in a new postgraduate diploma in education programme in the Cayman Islands. The aim of the study was two-fold. Firstly, to determine (through an analysis of the participants' reflective journals) the types of reflection in which they engaged and secondly, to evaluate Valli's (1997) typology of reflection as a tool for analyzing reflective journals. The results of the study showed that a modified version of Valli's typology aided in determining (from reflective journals) the types of reflection in which the participants engaged as well as actions to be taken. For example, while participants did engage in reflection-in-action and reflection-on-action and personalistic reflection, efforts should be made to encourage this occurrence. There was also the need to improve their skills in reflecting deliberately, critically, and technically. Implications of the results of the study for journaling in teacher education were also highlighted.

Pre-service teachers in a new post graduate diploma in education programme offered in the Cayman Islands were introduced to reflective journaling as a means of encouraging them to reflect on their teaching. There was, however, difficulty in finding an appropriate way to evaluate their journal entries in order to determine the types of reflection in which they engaged. Overcoming this difficulty would thereby indicate the degree to which the programme had succeeded in encouraging the teachers' reflectivity. Valli's (1997) typology was implemented and evaluated vis-à-vis its suitability to solve the problem.

Valli (1997) Typology Of Reflection

A review of literature and a number of teacher education programmes led Valli (1997) to conclude that there were five types of reflection: technical reflection, reflection-in-action and reflection-on-action, deliberative reflection, personalistic reflection, and critical reflection. In defining these types of reflection, Valli focused on the content for reflection and quality of reflection. Content for reflection refers to what teachers thought about, and quality of

reflection refers to how they thought about their teaching or the processes of thinking they go through. Valli (1997) explains each type of reflection and these are outlined here.

Technical reflection involves thinking about general instruction, that is, the teaching of techniques or skills. Teachers engaged in this type of reflection are directed by a straightforward application of research to teaching. They were also inclined to match their own performance to external guidelines established by education authorities and researchers. Reflection-in-action and reflection-on-action involves thinking about one's own personal teaching performance or unique situation. This process also includes using one's own values, beliefs, classroom context, and students as sources of knowledge for action. Teachers engaged in this type of reflection made and justified decisions based on their unique situation and experience.

Deliberative reflection involves thinking about a whole range of teaching concerns, including students, the curriculum, instructional strategies and the rules and organization of the classroom. This type of reflection emphasizes decision making based on teachers' personal beliefs, values, research, experience and the advice of other teachers. Teachers engaged in this type of reflection weighed competing viewpoints and research findings, and were able to give good reasons for the decisions they made. Personalistic reflection involves thinking about one's own personal growth, relationships with students, and improving students holistically. Teachers engaged in this type of reflection empathized and were very concerned with students' affective needs. Critical reflection involves thinking about the social, moral, and political dimensions of schooling. The aim is to understand and improve the quality of life of disadvantaged groups. Teachers engaged in this type of reflection applied ethical criteria, such as social justice and equality of opportunity to the goals and processes of schooling.

Valli's typology has been criticized by Hatton and Smith (1995) as being hierarchical in nature. They state that reflection-in-action and reflection-on-action is the most complex and demanding of the five types of reflection, yet Valli placed critical reflection higher, and seems not to have recognized this fact. They also argue that the end-point in the process of developing reflective practitioners is to develop their capacity to undertake reflection-in-action, which they consider to be the most demanding type of reflecting on one's own practice. In defense of Valli, Spaulding and Wilson (2002) point out that her typology of reflection is not hierarchical, and so one should not be tempted to value some forms of reflection more than others.

Despite these criticisms (and as indicated in the foregoing discussion), Valli's typology was selected to aid in the process of categorizing and determining (from the participants' reflective journals) the types of reflection in which they engaged. There were three reasons for selecting her typology. Firstly, it was compiled after careful analysis of the works of many writers and in particular Donald Schon, who is revered as an architect in the development of reflective teaching and thinking. Schon (1987) argues for, and demonstrates the benefits of reflection. He forwarded the idea that reflection occurred before, after, and during action. These he referred to as reflection-on-action and reflection-in-action. These ideas seem to undergird the construction of Valli's typology. Secondly, the typology was 'user friendly' and easy to follow. This is important, because faculty members evaluating journals had varied understandings of reflective teaching and journaling, and Valli's typology

provided a template that standardized the way the journals were to be assessed in the programme. Thirdly, and most importantly, there was the need for a 'tool' to aid in analyzing the participants' reflective journals, and her typology of reflection enabled the process of analysis.

The Use Of Reflective Journaling In Teacher Education

No one would oppose the idea that reflective journaling have been widely used in teacher education programmes. Clarke (2004) points out that it has been used to promote reflective thinking. The work of Uline, Wilson, and Cordry (2004) highlights its usefulness, when practicum students used it to identify viable topics of concern about school classrooms and Chitpin (2006) explores the effectiveness of reflective journal keeping as a means of developing reflective practice in pre-service teachers.

The underlying idea which permeates these and other writings on reflective journaling is that engaging in the process encourages the improvement and development of reflective teaching and practitioners. Additionally, reflective journaling is also linked to the development of the teacher's beliefs, empowerment, learning, and thinking, which are all integral to being or becoming a reflective practitioner and to reflective teaching. These areas are discussed further and their development via reflective journaling demonstrated.

Teachers' beliefs and Reflective Journaling

Borg (2001) defines belief as a proposition which is held either unconsciously or consciously. The individual accepts it as true and it serves as a guide to thought and behaviour. Research has shown that teachers' beliefs influence their practice and orient practical knowledge. For example, Barry (1982) reports a number of factors that influenced teachers' lesson planning, and teachers' beliefs ranked highest among those considered very important. Richards (1996), in a study of pre-service music teachers' pedagogical knowledge and beliefs, concludes that well-established beliefs about the teaching of music are formed from the participants' experiences as high school music students, as private music tutors, and as university students. Virta (2002) makes similar observations among student history teachers.

The relationship between teachers' belief and reflective journaling is also clearly established by research. Bell (2001), in her study, used reflective journal writing paired with inquiry-based science instruction to positively influence pre-service teachers' beliefs and attitudes about science and science teaching. Bell used reflective journaling as a component in a number of instructional strategies. In spite of the fact that reflective journaling was a single component among a number of instructional strategies, the writer isolated it as primarily responsible for influencing student teachers' beliefs and attitude. The study also concluded that it allowed student teachers to connect their own experiences and beliefs and their roles as future teachers of elementary science.

Bell (2001) also alludes to the fact that the use of reflective journaling in teacher education should be enveloped in the context of a supportive learning environment where students should be actively engaged in interacting with ideas

and phenomena and are able to discuss their understandings with each other and with instructors.

The use of reflective journaling coupled with a supportive environment is an excellent way of encouraging pre-service teachers to explore issues and concerns that are of personal and/or professional interest. This idea is also supported by Elder and Paul (1994), and Halpern (1996) who made the point that a part of being a reflective practitioner involves the exploration of issues in a collaborative and supportive environment. The point is, while reflective journaling encouraged teachers to examine their beliefs about teaching (and the examination of one's beliefs about teaching is a characteristic of reflective teaching), this must be done in an environment that is supportive. A supportive environment allows them to share their views without fear of ridicule.

Teacher Empowerment and Reflective Journaling

The study of Clegg (1997) points to the usefulness of reflective journaling in revealing tensions existing in an organisation. The writer, however, made the point that participants in her study reported that the process of keeping a reflective journal is empowering and fostered a sense of discovery. This meant that participants in Clegg's study were more aware of contradictions in their own practices, as well as the practices endorsed by their institution. Similar ideas to the ones being expressed here were identified by participants in the study being reported on in this paper. For example, a contradiction or inconsistency in institutional or professional practices is revealed in the following excerpt.

I learned that there is a double standard with respect to how males and females are treated in the teaching profession in instances such as these... more than once during my interview it was stated and implied that maybe if I were a female, things would not have gotten so far (Harry, journal entry November 2007)

A sense of discovery is seen in the next excerpt:

As a teacher I learned that I am reflective and I am willing to try different methods to bring about a positive change; caring about the total person and not just academics" (Willy J. journal entry November 2007)

The thoughts expressed by Clegg (1997) reflect characteristics of reflective teaching for example, addressing the institutional and cultural context in which one teaches, taking part in curriculum development, being involved in school change, and taking responsibility for one's professional development (Zeichner & Liston 1996).

As will be shown later, this aspect of reflecting on an organization and its role is an area that participants in the study being reported on were encouraged to carry out. Valli (1997) refers to this type of reflective act as critical reflection, which will also be discussed in some detail later in this paper.

Teacher Learning, Thinking and Reflective Journaling

Doucet and Wilson (1997) state that reflective journaling is a means by which students can scrutinize their own learning experiences. Learning occurs as journaling connects students with 'self', school context, and the education system. Learning about 'self' is a characteristic of reflective teaching, for

reflective teaching includes self-examination as an assessment of personal beliefs and values. According to Coyle (2002), Posner (1989), Zeichner (1992), Eby and Kujawa (1994), Hyrkas, Tarkka and Ilmonen (2001) and Hatton and Smith (1995), reflective teaching also involves engaging in discussions with others that lead to self-understanding and self-improvement. This could result in being a better teacher learner, thus facilitating necessary changes in self, others, and teaching context. Reflective journaling is also a teaching learning tool in which the responsibility for student-learning is shared by both students and lecturers (Doucet & Wilson, 1997). Reflective journaling is a 'tool' which enables students to engage reflectively with the practice of teaching. Journaling allows them to examine their beliefs, values, experiences, and assumptions, which influence the way they approach practice or respond to various school incidents or events. The role of lecturers is to examine students' journals and to use the data to guide the students' self-examination.

The idea of teacher thinking is intertwined with reflection, reflective teaching, and journaling. Gayle and Gayle (1999) see reflection as thinking about what you do, and Farrell (2001) sees it as thinking critically about what you do, which involves recall, consideration, and evaluation of experiences. Spaulding and Wilson (2002) made the point that reflective journaling can promote reflective thinking and, in their study, they highlight the ways that both students and instructors benefit from the reflective journaling process. The main ideas that they expressed which are of concern to this paper is the fact that, for their student teachers, reflective journaling serves as a permanent record of thoughts and experiences and, for the instructor, they serve as a window into the students' thinking and learning.

The latter part of this statement is of extreme relevance to the study being reported on in this paper because there was the need for a 'window' into participants' thinking, to identify the types of reflection in which they were engaged. The information gleaned would be useful in the process of encouraging their development as reflective practitioners. For example, the data analyzed revealed the fact that the participants were engaged mainly in personalistic reflection but needed to be encouraged to carry out critical reflection.

Participants

Pre-service teachers in a yearlong postgraduate diploma in education course in the Cayman Islands were asked to participate in a study carried out during the final quarter of the school year. A number of pre-service teachers (n=20) agreed to participate by having their reflective journals used as data for the study.

Data Collection

As a part of their teacher preparation course and to facilitate the study, participants were asked to keep a reflective journal during a school term and to record events they considered important to their practice. They were to submit only five entries for assessment. The events were to be described in great detail and should include a description of their feelings or emotions and, in particular, what they learnt from the event. Essentially, three questions guided their

journaling: What happened? How did you feel about the event? What did you learn from the event?

Data Analysis

Powell and Renner (2003) support the use of preset categories when analyzing data. They also state that preset categories provide direction for what to look for in the data. In light of this, the journal entries used as data for the study were analyzed using the following categories taken from Valli's (1997) typology of reflection. These were, reflection-in-action and reflection-on-action, deliberative reflection, personalistic reflection, and critical reflection. During the analysis of the data, technical reflection was omitted as a preset category because evidence of that type of reflection was not present in the journal entries.

Through a process of careful analysis, which involved reading and re-reading, journal entries were matched with the categories or types of reflection listed and defined by Valli. For example, under the category or type deliberative reflection, the analysis revealed that only a few journal entries (n=10) matched the corresponding definition. This and other results of the process of analysis are used in the next section of this paper which discusses the findings.

Presentation Of Findings And Discussion

The overall aim of this presentation of findings and discussion is to determine the types of reflection in which the participants engaged and display the usefulness of Valli (1997) typology of reflection as a tool for the analysis of reflective journals. To guide the discussion in this section, the categories or types of reflection constructed by Valli are used as a template.

Reflection-in-action and reflection-on-action and personalistic reflection

As indicated in the foregoing discussion, Valli (1997) states that reflection-in-action and reflection-on-action involves thinking about one's own personal teaching performance or unique situation. This process also includes using one's own values, beliefs, classroom context, and students as sources of knowledge for action. Teachers engaged in this type of reflection make and justify decisions based on their unique situation and experience. Valli (1997) also states that personalistic reflection involves thinking about one's own personal growth and relationships with students as well as student improvement, not just academically, but holistically. Teachers engaged in this type of reflection empathized and were very concerned with students' affective needs.

Overall, the most common type of reflection identified in the participants' reflective journal entries was reflection-in-action and reflection-on-action. Evidence of these were seen in a number of journal entries (n=68). There was also a reasonably high use of personalistic reflection revealed in journal entries (n=23). Two excerpts which exemplify these occurrences are presented.

What did I learn from this experience? Classroom management is a vital skill that must be employed by the teacher in an effort to manage a class effectively. Students have a way of knowing when you are not in control of the class and will take advantage of the

situation. There are going to be students who will be rude at times; teachers should not try to become caught up in unproductive arguments with these students. As a new teacher, be sure to assert your authority from the beginning as students are observing to see how much you will tolerate and they will respond to you accordingly (Greenie, journal entry October 2007)

In this excerpt, Greenie's focus was on pedagogical activity connected to her teaching performance, hence the writer (according to Valli 1997) is engaging in reflection-on-action. Greenie was concerned with classroom management and how to improve her performance in this area. She learnt, as a new teacher, that it was important to be assertive from the beginning of a class.

What did this teach me? One, it's a damn good thing I'm still at the beginning stages of the diploma in education program because obviously I still have a lot to learn. Two you need a thick skin in this job; learn to accept criticism and grow from it and three, don't be overconfident (Butzie, journal entry November 2007)

In this excerpt Butzie was thinking about 'self'. This was brought on by an encounter the writer had while applying for a teaching job. The writer had to teach a class as a part of the application process and although he thought he was well prepared for the teaching sessions, the interviewing panel and their evaluation of his performance brought him to realize that he had a number of things to learn about teaching.

The excerpts in the foregoing discussion corresponds with the study of Spaulding and Wilson (2002) who point out that their participants tend to think about classroom performance, classroom management or teaching skills and strategies. These occurrences are considered indicators of the use of reflection-on-action and reflection-in-action. Additionally, Spaulding and Wilson (2002) continue by stating that participants in their study also seem to engage more readily and easily with personalistic reflection and continue to do so, even when the researchers tried to get them out of that mode of thinking.

It could be inferred from the foregoing discussion and data analysis that pre-service teachers tend to focus much attention and energies on 'self', teaching methods, and classroom performance. Speaking with pre-service teachers engaged in field work exercise in the Cayman Islands proves this to be plausible, because inadvertently these areas would be introduced by these teachers in general conversations and particularly during formal teaching practice assessments.

Another reason to encourage reflective journaling by teachers involves the fact that it aids them in discovering what actions were appropriate or inappropriate in a variety of teaching episodes. For example, (after shouting at a student, one participant wrote :

In hindsight, there are more effective ways to handle poor behavior, such as taking the child aside and speaking firmly, within close proximity, letting them know that you mean business (Scottie H, journal entry November 2007).

After reflecting on the event via his journal, Scottie H discovered and noted another way in which the situation he encountered could have been addressed.

The foregoing discussion coupled with the data analysis suggests the need to encourage the participants to develop their ability to reflection-in-action and reflect-on- action, engage with personalistic reflection and to record these in

journals. Carrying out these tasks will aid in addressing issues and concerns they encounter during practice.

Deliberative reflection

Deliberative reflection according to Valli (1997) involves thinking about a whole range of teaching concerns, including students, the curriculum, instructional strategies, the rules and organization of the classroom. This type of reflection emphasizes decision making based on teachers' personal beliefs, values, research, experience and the advice of other teachers. Teachers engaged in this type of reflection weighed competing viewpoints and research findings and gave good reasons for the decisions they made. A few journal entries (n=10) indicated this type of reflection. For example, the participants in the study thought mainly about student-learning and behavior.

As a teacher I learned that it is important to me that a child is interested in, and enjoys participating in whatever they are learning or doing. I also learned that it is much easier to teach them if they are interested. I think it is important that we create and do our best to keep their interest in the topic being studied
(Willy J, journal entry November 2007)

From this excerpt one could conclude that Willy J is concerned with, and thought about, student learning.

I realized that students are a reflection of their home environments and Trevor was just mirroring what goes on around him. If there is a problem, physical assault or abuse was how it was dealt with and for me the principal was somewhat condoning the act, as Trevor was not fully reprimanded for such an incident
(Rammy, journal entry October 2007)

In this excerpt, Rammy was concerned with student behavior, particularly the physical attack on one student by another. Clarke (2004) states that journal entries from participants in his study focused on students and their learning needs and behavior. This occurrence sits well with Van Manen's (1995) understanding of teachers and teaching for he states that the concept of teachers as pedagogues assumes that a caring interest in the growth and welfare of students motivates their practice. Essentially, a focus on students' learning needs and behaviour seems to be not just desirable, but expected of all teachers.

An examination of the data coupled with the foregoing discussion suggests there is the need to encourage the participants to engage with deliberative reflection, that is, to reflect on student behaviour and learning, for these are important in the teaching learning dynamics and in addressing students' needs holistically.

Critical reflection

To reflect critically involves thinking about the social, moral and political dimensions of schooling. The aim is to understand and improve the quality of life of disadvantaged groups. Teachers engaged in this type of reflection applied ethical criteria such as social justice and equality of opportunity to the goals and processes of schooling.

Very few (n=3) journal entries indicated this type of reflection. One excerpt is presented here.

As I discuss possible solutions to the problem with Mr. Smith [Principal], it became so clear to me that if these students don't get the help they need now, in order to help them to become proficient readers the vicious cycle that is evident today with so many students in our High School who cannot read and write properly will just continue (Jeanny, journal entry October 2007)

In this excerpt Jeanny was indirectly engaged in reflecting on the goals and purposes of schooling in light of the need to provide opportunities for students experiencing difficulties. Jeanny felt that the school had a moral duty to help at-risk-youths, in particular, those unable to read hence she felt the need to discuss the issue with the principal of the school.

Posner (1989) while addressing student teachers on fieldwork experience encourages them to think critically, evaluate, and plan in regard to classroom incidents, teaching techniques or methods. However, he strongly suggests that they engage in critical thinking, for doing so will aid them in challenging accepted ways that schools have always carried out the tasks of teaching and schooling. Here, Posner challenges teachers in training to think about the goals and processes of schooling.

The fact that only three entries indicated the use of this type of reflection suggests that there is the need to be deliberate in encouraging this type of reflection in the participants through reflective journaling. This could be achieved via direct instruction and by instructors personally encouraging participants to begin to think about schooling in this manner.

Significance Of The Study And Implications For Journaling In Teacher Education

In addition to contributing to the body of literature which encourages the use of reflective journaling in teacher education, this paper offers a fresh perspective on the issue because there is no known similar work from the Cayman Islands. The study also supports the fact that journaling is useful as a 'window' into pre-service teachers' thinking and learning, and also brings to the fore the beliefs, values, and assumptions which influence their teaching (Spaulding & Wilson 2002). Implications for the continued educating and training of teachers locally include the need to encourage the process of reflecting on 'self as teacher', school contextual issues, and students' needs and behavior. But, more importantly, there was the need to develop the teachers' critical and technical reflection, for these were either non-existent or underdeveloped.

Conclusions

From the succinct review of literature and the presentation and discussion of data one could conclude that Valli's (1997) typology of reflection or a modified version could be used effectively in categorizing and in determining (from reflective journals) the types of reflection in which teachers engaged. One could also conclude that the usefulness of the typology is seen in the fact that it helped in determining the need to encourage pre-service teachers to continue the process of reflection-in- action and reflection-on- action and to engage in

personalistic reflection as a means of addressing issues and concerns they encounter in their practice. It also helped in determining the need to encourage pre-service teachers to improve in deliberative reflection, that is, to reflect on student behaviour and learning, for these are important in the teaching-learning dynamics. The fact that only three journal entries indicated the use of critical reflection suggests the need to deliberately encourage this type of reflection through reflective journaling.

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