Unravelling the unknowns of reflection in classroom teaching

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Background. The use of reflection in education has emerged as an effective means of connecting theory with practice. However, the literature reveals limited empirical work on the conceptualization of reflection.

Aim of the study. The purpose of this qualitative research study was to understand more fully the meaning and use of reflection in teaching, and how reflection contributes to the development of teaching expertise in the classroom.

Ethical approval. The study received ethical approval from the Faculty of Nursing Ethical Review Committee, University of Manitoba. Issues related to confidentiality of information, and power relationships between the investigators were addressed. Students were reassured that no data were collected about them during participant observations in the classrooms.

Methods. The investigators were the sources of data. Data were collected using five different methods over the course of two academic years, including written autobiographies, critical incident journals, classroom observations, debriefing following classroom observations and research team meetings.

Findings. The data were analysed using content analysis, and four themes were identified (i) making connections, (ii) developmental aspects, (iii) influence of context on reflection, and (iv) influence of emotions on reflection.

Study limitations. The interpretation of the findings of this study should be used with caution given the qualitative design and small number of participants.

Conclusion. Participation in the study increased the awareness of the investigators’ personal use of reflection. The process of studying our own use of reflection allowed us to step outside the performance treadmill to better understand, accept and reshape what we do over and over in the classroom. This study supports an examination of one’s experiences as a means of understanding reflection and its use in the classroom.

Keywords: reflection, reflective practice, reflective practitioner, classroom teaching, nursing education
Introduction

The traditional approach to classroom instruction in nursing education has relied on a model of learning in which the teacher is the expert and the learner is the passive recipient of knowledge. Over the past two decades, the work of scholars such as Benner (1984), Benner et al. (1996, 1999), Schön (1983, 1987), and Brookfield (1995) have highlighted the importance of experience in the development of professional expertise. Transferring this notion to the classroom refocuses the role of the teacher from a transmitter of knowledge to that of a facilitator, one who draws on the experiences of the learner. The use of reflection, as a basis for transforming the role of the learner, is viewed by educators as an effective method to achieve this goal.

Reflection has been used by clinical teachers for many years. Strategies such as pre- and post-clinical conferences and self-evaluation of practice are examples of approaches which use reflection. Although many nurse educators use reflection as a teaching strategy, most have not engaged in planned and/or orderly reflective practices themselves; their understanding of reflection is derived either from the literature or their work with students (Scanlan & Chernomas 1997). Moreover, there has been little research or practical advice for educators on how reflection is to be achieved and operationalized. Consequently, reflection has not been used consistently or systematically in nursing education (Platzer et al. 2000, Burns & Bulman 2000).

The purpose of this qualitative research study was to understand more fully the meaning and use of reflection in teaching, and how reflection contributes to the development of teaching expertise in the classroom. If nurse educators want to teach their students to be reflective practitioners, they must first be able to understand the development and use of the reflective process themselves. This study explored the conceptualization of reflection in the experiences of three university professors.

Literature review

There is little debate in the literature with respect to the efficacy of reflection in assisting practitioners to connect their experiences to practice (Glen et al. 1995, Durgahee 1996, 1998, Scanlan & Chernomas 1997, Lowe & Kerr 1998, Pierson 1998, Duke & Appleton 2000). These authors contend that reflection enables practitioners to tap into knowledge gained through experiences. The practitioner gains a deeper understanding of the meaning of the experience by bringing to consciousness tacit knowledge.

One of the difficulties with the research to date is the lack of a common meaning of reflection, an issue raised by Scanlan and Chernomas (1997). The most consistent understanding appears to emanate from Schön’s (1983, 1987) work. He suggests that the rigorous application of scientific theory and technique is instrumental problem solving that ignores the ‘swampy low-lands’ of practice in which the crucial problems of professional practice are embedded. Germaine to the development of professional expertise is the use of reflection by the practitioner in which tacit knowledge inherent in practice is surfaced to consciousness. Page and Meerabeau (2000) elaborate on this idea when they advocate for reflection because ‘various taken-for-granted elements of every day practice can be unearthed, made visible and considered for professional scrutiny’ (p. 366). Watson and Wilcox (2000) suggest that ‘reflection is particularly valued in the context of a professional life, because of its potential to enhance learning while we are in the midst of professional practice’ (p. 57). Schön (1987) makes a temporal distinction between reflection-in-action (thinking reshapes practice during practice), and reflection-on-action (thinking retrospectively on practice). Although this distinction is helpful in knowing the timing of the reflective activity for the practitioner, it does not shed much light on the conceptualization of reflection for the researcher interested in pursuing the phenomenon.

Scanlan and Chernomas (1997) describe the process of reflection based on the premise that it facilitates understanding of self in relation to practice and encourages students to think critically. Further, Baker (1996) contends that the process of reflection contributes to self-actualization and the development of new knowledge. In addition, these experiences are influenced by the personal, practical, and intellectual experiences of an individual, which influence values and assumptions (Richardson & Maltby 1995). An important contribution of reflection is the promotion of higher order cognitive skills (Callister 1993, Cameron & Mitchell 1993) and the integration of theory and practice resulting in nurses becoming critical thinkers and doers (Burton 2000). Moreover, these authors believe that reflection is a process through which individuals can dialogue with the self, resulting in an increased self-awareness and self-discovery. Heinrich (1992) posits that reflection is a process by which the participant can develop his/her own voice in the understanding of professional practice. Jasper (1999) uses a grounded theory approach to discover nurses’ perceptions of the value of written reflection. She found (i) reflective writing is a learned skill, (ii) analytical and critical thinking can be developed through reflective writing, and (iii) personal and professional development is facilitated by reflective writing.
Burns and Bulman (2000) contend that the research on reflection consists of usually small, disparate studies, and while there is ‘an abundance of literature on the subject of critical reflection, the literature is largely theoretical, speculative or frankly anecdotal’ (p. 20). Nursing research on reflection focuses primarily on students (McCaugherty 1991, Sedlak 1992, Richardson & Maltby 1995, Durgahee 1996, 1998, Hryka¨s 1997, Wong et al. 1997, Lowe & Kerr 1998).

Only one study was found that examined the teacher’s use of reflection (Glen et al. 1995). In this study, the researchers studied a student teacher using ‘reflective tutorials’. The participant agreed to having her tutorials recorded and transcribed. In addition, her diary formed part of the data. The authors concluded that the purpose of the reflective tutorials seemed to be a process in which the student teacher attempted to convert a work experience into a learning experience about work.

Developing the ability to be reflective has been considered in the literature only recently. The development of reflection by students is acknowledged by Duke and Appleton (2000) as occurring over time, and Whitehead (2000) touches on the developmental aspects of reflection in teachers. Although the research process used in his educational enquiry is unclear, the idea that reflection can be used to develop skill as a teacher is identified. Paget (2001) studied the impact of reflective practices on changes to clinical practice. Approximately 75% of registered nurse respondents claimed that reflection had contributed positively to changes in their practice.

There has been little concerted effort to investigate the use of reflective strategies in teaching, and the use of reflection from the perspective of the teacher has not been explored to any extent in a scholarly manner. As a beginning step in understanding a potentially powerful teaching strategy, this study attempts to unravel some of the unknowns in the use of reflection in the classroom.

The study

Method

This qualitative study explored the understanding of reflection in teaching as perceived by three university nursing professors. Planning, data gathering, and analysis formed the basis of the research process. In this way, the investigators were able to adapt the questions and refine the data collection techniques to focus more closely on the phenomenon of interest.

The study received ethical approval from the Faculty of Nursing Ethical Review Committee. Two of the investigators held positions of authority in the Faculty of Nursing. For the purpose of the study we agreed to treat one another as peers. Only the investigators had access to the data, which were used for research purposes only. For example, the data could not be used for tenure and promotion decisions. A disclaimer to students regarding the purpose of the study was read in all classes in which participant observation occurred. In addition, students were reassured that no information was collected about them.

Research questions

The research question guiding the study was: ‘How do the research participants understand and use reflection in their teaching?’ Supplementary questions which emerged from this overall question included: (i) what are the underlying assumptions about reflection? (ii) are these assumptions accurate? (iii) what factors influence reflection? (iv) how do we understand the meaning of reflection? (v) what situations cause us to reflect? and (vi) are there differences in the use of reflection by novice and experienced nurse educators?

Participants

The participants in this study were three faculty members from a western Canadian Faculty of Nursing. Two had been in nursing education for 20 years or more, and the other was a novice with 2 years of teaching experience. Two participants were female. In order to protect the anonymity of the male participant, all participants are referred to in the female gender. As investigators, we came together because of our interest in reflection and its role in teaching.

Data collection

We, the investigators, were the sources of data, which were collected using five different methods over the course of two academic years. Triangulation of sources added credibility to the findings (Polit et al. 2001, Gillis & Jackson 2002).

Written autobiographies

Brookfield (1995) contends that our autobiographies as learners are an important source of insight into our teaching and are frequently dismissed as being too subjective. Analysing past experiences assisted us to gather insight and meaning from personal experiences which had a deep and lasting influence on our teaching. In fact, Brookfield maintains that these experiences have more effect on our teaching than what is learnt from textbooks for, in the face of ambiguity or crisis, we tend to rely on memories to guide our practice. Moreover, autobiographies often help to explain parts of our practices to which we are committed, but seem
unconnected to any formal model we have learned. Each participant completed one written autobiography prior to beginning data collection using other methods. The autobiographies detailed at least one situation experienced by the participants as learners which had a significant impact on teaching practices.

Critical incident journals
Critical incidents are described by Durgahee (1996) as experiences that make an impression on the individual because of the unique or special meaning they hold, bring to consciousness an awareness of what is happening, or remind us of our views and biases. Watson and Wilcox (2000) contend that ‘in reading our stories and our practice, we come to understand our own understanding of ourselves as reflective practitioners’ (p. 59). Critical incident journals enabled us to focus on teaching activities which were vividly remembered as being significant (Brookfield 1995). Each participant completed six critical incident journal entries, or stories about their practice throughout the course of the study.

Classroom observations
One of the strengths of observation is the access it provides researchers to the process of the phenomenon of interest (Anderson & Burns 1989). Moreover, observation often brings to consciousness implicit theories of practice of which the teacher may be unaware (Powell 1989). Watson and Wilcox (2000) believe that classroom observations are a form of analysing the conventions of practice that ‘are especially important because their very ordinariness has the power to shape us in ways we do not always attend to’ (p. 63). As teachers, we are usually so busy doing what needs to be done in the classroom that we do not attend to the underpinnings of our own teaching.

Each of us was observed twice for the entire length of a 3-hour class by the other two investigators. The purpose of these observations was explained to students. One set of observations was videotaped. Each observer independently took field notes about the other participant’s teaching activities using a guide developed for the study to direct these observations (see Table 1). These observations allowed us to review and analyse classroom activities individually and then together as a group. Although these observations are subject to observer bias, confirmability of the findings was enhanced by having more than one observer for each teaching situation (Polit et al. 2001, Gillis & Jackson 2002).

Debriefing following classroom observations
Within 1 week following classroom observations, the two observers met with the colleague whom they observed. The purpose of the meeting was to allow the observers to share their classroom observations. These shared observations and open-ended questions prompted the investigator who was observed to elaborate on and describe her thinking. Burton (2000) claims that, when this strategy occurs in a nurturing environment, it promotes reflection-on-action. Notes were taken at these debriefing sessions and included as part of the data set. This technique is recommended by Watson and Wilcox (2000) as a method to promote reflection.

Research team meetings
We met twice each academic term to discuss the ongoing research, compared notes taken during the observations and reviewed autobiographies, debriefing transcripts, and critical incident journals. The focus of these meetings was to challenge our thinking in greater depth about our teaching practices.

Data analysis
The data were analysed using content analysis, a technique which makes inferences through systematic analysis of written or verbal communication (Gillis & Jackson 2002). These data were compared, coded, and common themes identified. We independently coded the data from the autobiographies, observation and research team meeting notes, and critical incidents. This independent review enhances the credibility and trustworthiness of the findings (Polit et al. 2001, Gillis & Jackson 2002).

Findings
Types of data elicited from data sources

Autobiographies
The autobiographies described powerful experiences that affected our thinking. They revealed beliefs and assumptions about reflection and its relationship to teaching. In addition, the autobiographies often made explicit experiences held at a subconscious level, enabling us to see the basis for their beliefs about teaching practices.

Table 1 Observation of classroom teaching guide

| The teacher asks students to identify past experiences as examples of the content being discussed |
| The teacher gives examples from his/her own practice and/or personal experiences to illustrate content |
| The teacher asks students to describe their meaning of the content |
| The teacher responds to student questions |
If I close my eyes I can still see it (the experience) as clearly as the day it happened.

All three autobiographies focused on stories that had a tremendous emotional component. It was interesting to note that for two of us, the emotional element was negative. The description of the experiences uncovered the emotions associated in our memories with those experiences which they believed had a lasting impact on their teaching:

She (clinical teacher) proceeded with my evaluation and stated that I was not doing very well, my skills were inadequate. Quite frankly, I don’t recall anything positive.

Critical incidents
The critical incidents identified beliefs and assumptions about reflection and teaching:

I believe students learn best when they make the connection between class content and their own personal situations.

Critical incidents assisted us to dispel incorrect assumptions about students in class. One of us was returning grades to her class that were lower than anticipated. Writing the critical incident enabled her to identify a totally unforeseen response on the part of students:

I did not sense any antagonism or anger. I was blown away by their response. I thought they would be very angry with me and bombard me with hostile comments.

One of us who was experienced described a classroom experience in which she used ‘reflection-in-action’ (Scho¨n 1987). Without writing about the critical incident it is unlikely she would have been able to identify the use of reflection-in-action:

I became conscious of the fact that I was not using as much of the students’ or my experiences to connect the content to what might be meaningful to them. This reflection-in-action occurred during the class.

Classroom observations/debriefing at research team meetings
Observations of one participant by the other two provided a critical analysis and new perspective of events that transpired in the classroom. Analysis of these observations enabled the participants to see if our beliefs and understanding of reflection actually were carried through in our teaching practices. In this way, the two observers confirmed for the participant what they saw in practice. These observations triggered discussion related to what the participant who was teaching was thinking about at the time. Consequently, we were able to make connections between our experiences and the abstract concepts related to reflection.

Themes
Four themes were identified: (i) making connections, (ii) developmental aspects, (iii) influence of context on reflection, and (iv) influence of emotions on reflection. Each will be discussed, including the specific characteristics of the theme. The main theme, Making Connections, relates to how the participants used reflection to assist students to attain a deeper understanding of the content. The latter three themes discuss the role of various influences on one’s ability to use reflection in the classroom.

Making connections
This was the main theme that emerged from the data. As such, the characteristics defining it are more thoroughly developed than the other three identified themes. We used reflection to assist students to make connections between the theory taught in the classroom, their experiences (both personal and professional), and assumptions they held about the topic under discussion. The connections were made in a variety of ways.

Connecting teachers’ experience to the content
Frequently in the classroom we would relate the content being presented to our own practice or experience. In this way, we role modelled to students how the content could be applied to real life situations. In these situations, we used our own experiences to connect the learning so that it was understandable for students. For example, when discussing decision-making, one of us recalled an experience of buying a jacket that was on sale and the decisions she made in deciding whether or not to purchase the jacket. The connections between our experience and the content went in both directions, that is, experience-to-content and content-to-experience. This was the most common use of reflection by the novice teacher.

Connecting students’ experiences to the content
There were three separate ways in which we used students’ experiences to illustrate the content being discussed in class. In the first example of this category, nursing experiences common to students were used, such as performance appraisals and learning to give intramuscular injections. The second category involved using examples outside nursing with which all students would be familiar. These were easy examples from real life, such as driving a car. Finally, the more experienced of us used examples of what was currently occurring in the classroom. This latter use of reflection demanded expertise with both the content and teaching, and the ability to provide spontaneous responses.
Connecting content to content
This was a frequent use of making connections. In these situations, we referred students back to content previously covered in the class. As well, they often used the opportunity to connect what students were currently learning to future learning in the course.

Making the implicit explicit
This was a more sophisticated use of reflection and used only by the more experienced participants. Students were unable to identify the relevance or meaning of their experiences as they linked to the content being discussed. In these instances, the teacher was able to pick out content being discussed in class and linked them to students’ past experiences.

Eliciting students’ understanding
In getting students to describe their current understanding of the topic, we were able to help students make meaning of their own experiences and their relationship to the content being considered in the class. Questioning, a common technique used by all of us in this category, was used to elicit students’ perspectives.

Students experiencing the content
Although this was a strategy used more frequently by the two of us who were more experienced, the novice teacher in the research team used this strategy on occasion. Case studies, small group activities, and written responses to reflective questions were used to involve students in making connections between the content and their practice.

Developmental aspects
We found that the use of reflection increases with experience as a teacher. Although the novice teacher had a tendency to be reflective in her daily practice, we observed minimal use of reflection in the classroom. Serendipitously, the observations of the novice teacher occurred at the same point in the same course in two different terms. Although there were a few more attempts to link content to students’ experiences, the number of these connections were not that much more prevalent, and not nearly as many as those of the two experienced participants.

Another developmental aspect of the use of reflection related to the complexity and variety of the reflection used. The novice participant’s use of reflection was primarily asking students to think of how the theory related to their nursing practice, as well as relating the content being discussed to past and future course content. However, as she became more familiar with the course and content, she was more able to engage in dialogue with students from a reflective perspective. She described reflection as a demanding process, requiring the teacher to be ‘always on’. As expertise in teaching and the subject matter developed, she was more able to use the cues from students to reflect-in-action.

An unanticipated finding of the study was the relationship between the use and complexity of reflection and the teacher’s comfort and familiarity with the content. This finding emerged when one of the more experienced of us was teaching content with which she was not as conversant. To her surprise, she discovered that she was tied more to her lecture notes and found it more difficult to think of experiences to which she could connect the content for students. The ability to use reflection requires not only expertise in teaching, but also mastery of the content.

Influence of context on reflection
One of the findings of the study related to the effect of class size on the use of reflection while teaching. One of the experienced participants found that she used less reflection because of the size of her class. In the case of the other two participants, their classes were significantly smaller. The more experienced participant used reflective teaching strategies often to assist students in understanding the course content.

Two of us spent several weeks in the People’s Republic of China during the study. At that time, we conducted a workshop that included classroom teaching. We reflected that it was more difficult to think about experiences that had meaning for the learners in this setting because of the differences in culture and lack of specific knowledge about Chinese nursing education programmes. Nonetheless, the participant who had more experience in China was able to use reflection as a teaching strategy more frequently than the other participant. Therefore, one could assume that culture and understanding of the culture influences one’s use of reflection in the classroom.

During the course of the study, we presented our courses through print-based distance delivery, in addition to the classroom. We assumed that students learning at a distance were responding to the reflective questions included in the course manuals. However, there was no assurance that this was so. We agreed that face-to-face interaction in the classroom was more rewarding and facilitated the use of reflection in a way that we could not be certain was occurring in the distance course. Teaching print-based courses was a ‘struggle’ for us because of the lack of opportunity for personal interaction with students in which they used reflection.

Another contextual issue occurred when one of us was a guest lecturer in another class. She did not want to impose
reflection on students because she was not sure how they would react. Therefore, she relied on a more didactic method of classroom instruction. This was not a satisfying experience for her because she was not able to engage students in the course content to the extent that occurred when she used reflection. Following this experience, the next time she guest lectured, she included reflective exercises and found that students responded well to these activities.

Influence of emotions on reflection

Strong emotions created powerful memories that were revealed in both the autobiographies and critical incidents. These emotions seemed to have a mediating impact on our use of reflection in teaching, as well as our beliefs about effective teaching.

We found that the experiences most clearly remembered for both the autobiographies and the critical incidents were those that contained powerful emotions – either positive or negative. These emotions, in part, seemed to enable us to remember with greater detail what transpired in the teaching or learning experience. By writing about these experiences and reflecting on them, we were able to discover their meaning as they affected beliefs and assumptions about teaching and reflection.

Evidence of emotions and their influence while teaching also were found. We discovered that when we connected on a personal level with students we were more able to engage in reflection. The personal interactions with students energized us in our teaching and enabled us to use reflection in a more purposeful and productive manner. When we found ourselves vulnerable and drained emotionally related to personal circumstances, it was difficult to use reflection.

Discussion

The study findings suggest that our experiences played a profound role in our use of reflection in teaching. Not only were these experiences professional, but they were also experiences from our personal lives. Acknowledging who we are as people and the relationship of our personal experiences to our teaching can assist us to enrich the learning environment for students.

Reflection is useful in helping teachers make connections between the content discussed in a classroom setting and students’ experiences. An interesting finding of this study is the multiple ways in which a teacher can use reflection to make connections between the content and students’ and/or teachers’ experiences in order to arrive at a more meaningful understanding of the topics being discussed. For example, role modelling, using examples, and questioning were common techniques used to assist students to make connections with the content.

Recently, the literature has discussed the developmental aspects of reflection (Duke & Appleton 2000, Whitehead 2000). However, the purpose of Whitehead’s study was the improvement of practice using reflection, while Duke and Appleton described the development of reflective abilities in students. Our study revealed the differences in a teacher’s ability to use reflection related to experience in teaching, as well as understanding of the content being presented. As we become more comfortable as teachers, we are able to engage students more, using reflection to illustrate and highlight content. Personal reflective abilities do not automatically transfer to the use of reflection in the classroom. Time is needed to develop one’s confidence in the content and process of teaching before we can use reflection intentionally and meaningfully.

The context – class size, classroom vs. distance, and culture – affects the use of reflection. The context of the teaching experience has an effect on our ability to use reflective practices. Understanding the influence of context on reflection, however, is underdeveloped and requires further study.

Emotions, such as humiliation, anger and happiness, were important elements in shaping reflection in our teaching practices. The findings revealed that positive and negative emotions played a critical factor in our experiences as learners and, subsequently, as educators. Emotions were a mediating factor in shaping our beliefs about effective teaching. In addition, emotions influenced connectedness to students, the use of reflection, and how reflective practice was interpreted and used in the classroom.

Conclusion

Our interpretation of the findings of this study should be used with caution given the qualitative design and small number of participants. Further investigation by others may add to the credibility of these findings. There are some interesting findings in this report that warrant further investigation, such as the influence of teacher experience in the use of reflection in the classroom, the impact of reflection on student outcomes, and the role of context in the reflective process.

Participation in the study increased awareness of our personal use of reflection. The process of studying our own use of reflection allowed us to step outside the performance treadmill to understand better, accept and reshape what we do over and over again in the classroom. Watson and Wilcox (2000) claim that reflection-on-practice can be learned through reading one’s stories of practice and the conventions of practice to examine how we ‘order our experiences.
through particular strategies, approaches, and routines’ (p. 57). This study supports an examination of one’s experiences as a means of understanding reflection and its use in the classroom.

References


