

MOVING FROM TECHNICAL TO CRITICAL REFLECTION IN JOURNALLING: AN INVESTIGATION OF STUDENTS' ABILITY TO INCORPORATE THREE LEVELS OF REFLECTIVE WRITING

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Accepted for publication May 2001

ACKNOWLEDGEMENT:

We would like to acknowledge the assistance of the following people with this project: Wendy Hillman, Carol Nolan, Joe Morrissey and David Lindsay. Most importantly, we would like to acknowledge the students who took part in the study, for without their efforts, the study would not have been possible.

Key words: levels of reflective writing, reflective practice, teaching strategies, nursing education, preregistration nursing students, journalling

ABSTRACT

This paper outlines a research project aimed at changing the levels of reflection of preregistration nursing students in a tertiary institution. Whilst reflection is widely espoused now in nursing, few studies have been found that identify whether the level of reflective writing can be identified or developed by students. Anecdotal and research evidence (Powell 1989; van Manen 1977) however indicates that most student reflective writing occurs at the technical level. A descriptive exploratory study using both qualitative and quantitative techniques was undertaken to apply van Manen's (1977) levels in a structured way in an attempt to facilitate the student's understanding and use of the levels in their reflective writing. The findings of the study indicate that student self evaluation and identification of the levels in their own writing can lead to change in the levels of critical reflective writing achieved by undergraduate students.

INTRODUCTION

The context of nursing has changed in the last decade (Chaska 1990; Maloney 1992; McCoppin and Gardner 1994; Sutton 1996). Advances in nursing and medical knowledge are expanding rapidly and there is a need for increased expertise and confidence with technology in nursing care. Reduced government funding and technological advances have led to a reduction in hospital beds, shorter hospital stays and more rapid patient turnovers. As a result, workers in health care institutions spend much of their time dealing with acutely ill patients requiring specialised care.

As a consequence of the turnover, health care needs in the community have increased. In both situations nurses need higher level acute care skills, the capacity to think for themselves and a predisposition to continue learning in order to stay abreast of technological, medical and health advances. To add to this, the focus is now on the health care consumer (Maloney 1992; Wass 1994), illness prevention, health promotion and community involvement in care which add new dimensions to the work of nurses. In addition, Kim (1993) claims that nursing faces a new era that requires fusing and synthesising knowledge for its application.

Within this climate of increasing role complexity and time of rapid change, much is being written about the need to redefine education (Atkins and Murphy 1993; Casey 1995; Wong et al 1995). The antiquated 'training' can be viewed as closed and final. It is narrow in scope and application and, as Casey (1995) points out, it can produce efficient technical nurses but this is not enough to meet the needs of societal changes and tends to lead to uncritical application of practice (Glenn 1995) in contexts that require different ways of knowing (Meleis 1991),

particularly in a multicultural society. Because of the complexity of practice in terms of knowledge and knowledge production, it is evident that nursing needs to develop a method of inquiry that involves practitioners in the inquiry (Kim 1999).

Reflective practice and the notion of questioning of taken for granted assumptions which underpin that practice has been widely advocated as a way of working with complex and changing work contexts (Atkins and Murphy 1993; Wong et al 1995; Kim 1999).

We define reflection as a process leading to new understanding of:

- action situations;
- self as nurse in terms of the cultural milieu of the health care system;
- taken-for-granted assumptions about nursing practice and rituals;
- ways of committing to improvement in safe and competent practice; and,
- ways of challenging practice.

Reflection should lead to action which is better informed than that which occurred before the reflection (Francis 1995). Such a definition does not deny the importance of competent technical skills. Rather, it seeks to extend understanding of these across changing and complex contexts.

The goal of reflection is seen as challenging the established and habitual patterns of expectation and long taken-for-granted meaning perspectives. Mezirow (1981) makes a distinction between non-reflection (habitual action), reflection (thoughtful action which selectively reviews prior learning rather than appraise or reappraise it) and critical or premise reflection (challenging the validity of presuppositions in prior learning). James and Clarke (1994, p.84) describe the process of reflection as that which 'elevates the actions of the reflective practitioner above those of the technical expert'. However, they recognise problems inherent in the teaching and assessment strategies and the complex, intangible nature of reflection with its lack of control of learning outcomes by the educator. It is the problem of how educators can support and validate this move from technical to reflective which was the focus of this study.

Journalling and reflective practice

Journalling has been advocated for the development of reflection and learning in educational settings (Holly 1984; Boud, Keogh and Walker 1985; Francis 1995; Usher et al 1999). Fulwiler (1987) claims that the more people write the better they learn. Of all modes of language use, writing is the most powerful for developing sustained critical thought. It is writing that makes our thought

visible, laying it open for us to modify, extend, develop or critique.

Callister (1993, p.185) applies this learning through journalling specifically to nursing stating that journals are an effective tool to develop 'the human science of nursing in contrast to the reductionist biomedical model of health care delivery'. Further, she outlines other benefits such as opportunities to define and articulate links between theory and practice with a focus on lived clinical experience, the development of sustained critical thought by increasing conceptual clarity and increased ability to empathise, observe and describe. Francis' (1995, 1997) work with pre service teachers indicates that journalling aids the personal construction of knowledge when students are explicitly taught to question the ways they give meaning to university course work, lived experience and culturally embedded beliefs and values.

Both Francis (1997) and Patterson (1995) see benefits in the educator dialoguing privately with students through journal writing. These benefits include expanding the students' understanding of the entirety of the experience and increasing ability to articulate that which they did not know they knew. Through journalling, students are able to investigate their own thinking and understanding, revisiting it over time to challenge values and attitudes.

Levels of reflection

While a number of models of levels of reflection have been proposed (see for example, van Manen 1977; Mezirow 1981; Kim 1999) we chose the model proposed by van Manen (1977) as it was considered more easily adaptable to nursing due to our knowledge of both the model and van Manen. Van Manen (1977) puts the levels forward as (i) the technical level where the application of knowledge is for the purpose of attaining a given end; (ii) the theoretical or practical level where it is realised that any choice requires a process of analysing and clarifying individual and cultural experiences, meanings, perceptions, assumptions and prejudgments, and (iii) the critical level where the practical addresses itself, reflectively, to question the worth of knowledge and the nature of social conditions.

This level involves a constant critique of domination and repressive forms of authority, and pursues self-determination on the basis of justice, equality and freedom (van Manen 1977, pp.226-227). In this study, students were told to consider each level as follows: the technical - what did I do, how did it work, how can I improve it?; the theoretical - linking previous theories from the literature and forming personal theory; and critical or moral ethical - the macro issues of good for whom and good for what, for example, who will be advantaged/disadvantaged here?

However, even though a number of writers have put forward models of levels of reflection, we could not locate any studies that indicated that levels of reflection can be identified or evaluated by students, that changing of the levels of reflective writing is possible, or that changing the level alters the meaning given to professional practice. What does seem to be apparent, however, is that reflective journal writing tends to include writing that mostly meets the criteria of the technical level of writing (Powell 1989; van Manen 1977). Therefore, the purpose of this study was to investigate beginning nursing students' understanding and ability to use the different levels of reflective writing (technical, theoretical, critical) by involving them in self-evaluation of their own journaling using the framework developed by van Manen (1977), and to determine whether the level of reflective writing could be changed as a result of involving the students in self-evaluation of their level of reflective writing.

METHODS

Design of the study

A descriptive exploratory study was undertaken to explore the following objectives:

- to describe the levels of reflective writing using students' initial reflective writing;
- to explore whether students can assess their own writing to determine their levels of reflective writing;
- to explore whether the level of reflective writing can be changed (from technical to critical) by engaging students in self-evaluation of their reflective journal writing using van Manen's (1977) framework;
- to assess what is different about those students with the greatest amount of change in their level of reflective writing when compared to those who evidenced little, if any, change in their level of reflective writing.

Subjects

All undergraduate nursing students in their first year at a regional Australian university were invited to take part in the study. Thirty-eight out of a possible 150 volunteered. From the 38, only 15 complete data sets were included in the study. Of the 38 students, 11 volunteered to be interviewed at the end of the study.

Procedure

Initially, all first year students were assisted to evaluate a piece of reflective writing using van Manen's (1977) framework for levels of reflection. Once all students in each tutorial group appeared to master this task, the students were then encouraged to evaluate their own journal writing using the same framework. Students would practise this each week in allocated class time

with the tutor available for assistance if confusion arose. Students were also encouraged to assist each other with this activity. Three times during the semester (weeks 3, 6 and 9), the journals of those students who volunteered to take part in the study were collected and analysed by the research team.

The levels of reflection in each journal were determined using van Manen's (1977) framework as provided to the students and counted using a different colour highlighter for each level. That is, sentences and paragraphs were individually considered against van Manen's (1977) framework and highlighted in the colour assigned to the particular level (eg yellow for descriptive writing). Counting words and sentences in each colour and assigning a score then made an estimation of the amount of writing representative of each level. Individuals were then allocated a score representing each level of reflective writing by determining an estimated percent of the writing that demonstrated the characteristics of the levels. Non reflective material, for example information about the subject, and personal issues were excluded from the data.

The quantitative data obtained were analysed using percentages only as the data sets were considered insufficient for any further statistical analyses. Individuals were then allocated a score representing each level of reflective writing. This score was then entered into the data set. No other information was gathered from the journals which were then promptly returned to the students.

After the three data sets had been collected, students who had volunteered for the first part of the study were asked to volunteer to be interviewed as part of a focus group. The focus group questions related to the students' experiences during the study. Eleven students who volunteered to take part in the focus groups were sorted into two groups representing those who had demonstrated the most change and those who had demonstrated the least change. The qualitative data were analysed using content analysis.

Ethical implications

Ethical clearance to conduct the study was obtained from the relevant human ethics review board. Students were provided with an information sheet that described the study and volunteers were required to sign a consent form. The students were reminded of their right not to take part in the study, and their right to withdraw at any time. All information collected from the study was maintained and stored in accordance with ethical guidelines.

FINDINGS

Students appear to be capable of evaluating their own reflective journal writing using a framework of levels of reflection as indicated by the results. The assessment of the students' journals by the research team indicated that the students rarely made a mistake in their assessment of the level of their reflective writing. The initial level of

Table 1: Student levels of reflection at three points of time across the semester

	Week 3	Week 6	Week 9
Level I Descriptive	34.9%	39.1%	37.2%
Level II Theoretical	26.5%	27.8%	19.6%
Level III Critical	4.8%	5.7%	10.5%

N.B. The percentages for each week do not make 100% as material that was not reflective was not included in the data set.

reflective writing evident in most students work was at the technical level. This was as expected.

Table 1 indicates that the descriptive writing increased overall and critical reflective writing increased steadily across the three data sets indicating that the students did change their level of reflective writing with constant self-evaluation. However, the theoretical level of reflective writing clearly decreased across the data sets.

While this was in contrast to what was initially expected (ie that theoretical and critical levels of reflection would increase), perhaps it can be explained as an artefact of the small data set.

However, an analysis such as this that averages scores across the group does not allow for individual differences, therefore an examination of individual data sets was carried out. When this was done we discovered a group of students who appeared to have evidenced little, if any, change in their reflective writing. Within this group were two categories: those who came into the study with an existing high level of theoretical or critical reflective writing, and those who came with low levels of theoretical or critical reflective writing and demonstrated little, if any, change as a result of the study.

The findings from the focus group interviews were also interesting to note. The difficulty in sorting the different existing abilities of the students was a confounding variable. The students demonstrating the most change in levels of reflective writing appeared to value writing as a reflective strategy, could link the usefulness of reflective writing to the practice setting, showed they took ownership of their reflection, could see it as a useful learning tool, and demonstrated a personal level of questioning.

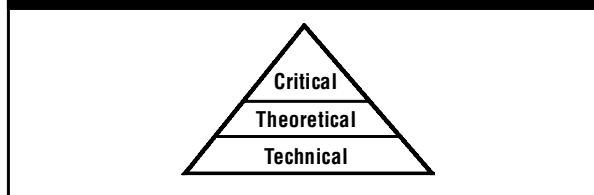
For example, these students made comments such as 'I can see this benefiting my nursing practice' and 'this has helped me to think in a different way when I'm writing'.

In contrast, those students from the least change group saw the process at a technical level 'of what works', constructed writing as something over which the tutor was the arbitrator, considered the reflective writing as the end point rather than as a process of personal development, were procedure oriented and focussed on what and how to write, expressed concern with privacy which led them to constantly censor their writing, and had difficulty seeing an application of critical reflection in the clinical setting. For example, these students made comments such as 'I try to write the way they [the tutor] wants me to' and 'I don't write what I want because it will be read by the tutor' and 'I don't see how this will benefit my practice in the future'.

DISCUSSION

It appears that by focussing on a search for levels of reflective writing over time, the students developed a consciousness of the differences between technical, theoretical and critical reflective writing. It is also evident that students are capable of changing their level of reflective writing by utilising self-evaluation and a suitable framework (eg van Manen 1977) in which to write. Although Kim (1999) has been able to demonstrate this with experienced registered nurses as part of a group exercise with the advantage of a facilitator, we believe this is the first time this has been demonstrated with undergraduate nursing students. This is interesting as there is a dearth of strategies available to assist undergraduate students and new practitioners to learn how to become reflective.

Figure 1: van Manen's (1977) framework of reflection explained by use of a triangular diagram (as used in classroom teaching)



In addition, it also seems apparent that the students perceived the tutors as valuing the critical reflective level more highly in a hierarchical or tiered way. There are several possible explanations for this. The visual presentation of the levels of reflection as a triangle with the critical at the apex suggests that it is more highly valued.

Because we talked about 'lifting of levels' during our explanation of the framework and intention of the study, that also indicated a valuing of the critical level. This may have overshadowed any talk of integrating all three as of equal importance and how all must be nurtured and practised in order to enhance personal professional development.

What we cannot determine from the results of this study are: (i) the ability of students to transfer this increased awareness to the clinical context, and (ii) whether any claims can be made regarding students' predisposition to reflective thinking and how this might have influenced the results.

Limitations and lessons learnt

One limitation was that the students self-rated their journal writing. This must be taken into account when considering the results of this study. However, the research assistant did review all journal entries and student assessments of the levels of reflection. Further, it is possible that the results may indicate that the students wanted to please their tutors and thus wrote the very things they knew their tutors were seeking (Cameron and Mitchell 1993; Wellard and Bethune 1996). Other researchers attempting to unravel this important phenomenon have faced this problem.

In addition, a great deal of time was expended by the class tutors in assisting students to identify their levels of reflective writing even though only 38 students volunteered for the study. Unfortunately, it was difficult to sustain the enthusiasm of the tutoring group which may have accounted for some of the students who did not complete all of the requirements thus making their data unusable.

The main limitation, however, was the time frame for the project. A very complex process was undertaken over a 10-week teaching period which was necessitated because of clinical placements. In further studies, attempts should be taken to ensure that a much longer period is available for this process to be adequately assessed. Further, the study made no attempts to explore the transfer of this skill to the clinical setting, nor to examine the impact of age, culture, gender, or previous experience on the levels of reflective writing.

The study was also limited by the number of students who volunteered to take part and the final number of data sets available for the researchers' analysis. This meant that more sophisticated statistical analyses were not possible. More research needs to be done to confirm or refute the trends identified in this research.

Finally, the researchers started out believing that it would be possible to identify the 'change/no-change' groups without taking account of the prior skills existing in both writing and reflective thinking. This was perhaps the major learning that occurred within the research group.

Recommendations for further research

The study needs to be replicated with a larger sample for any valid claims to be made. Also entry writing and reflective skills have to be thoroughly explored to establish a comprehensive baseline so that 'change/no-change' can be explored and explained in more depth.

Concurrent, ongoing assessment of critical thinking and transfer to action may be useful. Exploration of age, culture, gender and previous experience would also be useful.

Before any claims can be made about the impact of this strategy of developing reflective writing, and transfer to the clinical scene can be made, a further study needs to be undertaken that follows the students into the clinical setting to determine if any change to clinical practice occurs.

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