Developing reflective practice in the education of university teachers

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Developing Reflective Practice in the Education of University Teachers

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Abstract

Reflective practice is regarded as an essential competence for teachers in higher education. Effective programs for these teachers integrate skills development with critical reflection and the experience of actual teaching. Journal writing is a strategy for supporting the development of reflective practice. It is used within the Introduction to Tertiary Teaching course (ITT) for lecturers at the University of Wollongong. This case study describes the outcomes of an investigation into ITT participants' perceptions of journal writing and reflective practice within the course. It includes Ideas for Implementing Reflective Practice in ITT Subjects which was developed as a result of the investigation.

Background

The Introduction to Tertiary Teaching (ITT) subject was introduced at the University of Wollongong in 1992 as a basic course in tertiary teaching practice for university staff. It is conducted jointly by Academic Development Services (ADS) and the Faculty of Education. Since 1994, mandatory attendance has been written into the employment conditions of all newly appointed academic staff. Exemption may be granted where an appointee has already completed a similar course elsewhere or can provide evidence of superior teaching performance in the tertiary sector.

The ITT is a post-graduate subject introducing staff to a range of basic methods and skills of university teaching. It rests on a platform of reflective practice. This is because reflective practice is regarded as:

- an essential competence for all professionals (Agyris & Schön, 1974; Schön, 1983; Senge, 1990)
- a vital skill for teachers (Ballantyne & Packer, 1995; Boud, Keogh & Walker, 1985; Kemmis & McTaggart, 1988; Osterman & Kottkamp, 1993; Zuber-Skerritt, 1993)
- an essential skill for lifelong learning (Candy, Crebert & O'Leary, 1994; Mezirow, 1991; Brookfield, 1988).

Within the ITT participants are encouraged to experiment with basic skills, strategies and methods of teaching through cycles of action and reflection to attain their personal performance objectives. They are encouraged to utilise the DATA method (Peters, 1991) to develop a high level of independent reflective activity. This approach has been validated by Martin & Ramsden's (1994: 59) report on the provision of courses for new academics in Australian universities. This states that:

"... the most effective programs are characterised by the holistic, experience-based approach ... wherein skills, reflection and the experience of actual teaching are integrated within a cooperative learning environment ."

ITT participants are expected to reflect in writing on a regular basis, using a journal. Figure 1 illustrates the way in which 'reflection', 'action' and the 'journal' inter-relate in the course. The following paragraphs outline the essential concepts of 'reflection', 'reflective practice' and 'journal'.
Reflection
Reflection is a rational and focused process of testing assumptions. It was posited in 1938 by John Dewey who described reflective thought within teaching and learning as the "active, persistent and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusion to which it tends".

In addition to the cognitive effect, the emotional response of the practitioner is integral to the process (Osterman & Kottkamp, 1993; Boud, Keogh and Walker, 1985). Brookfield (1988) notes that 'Critical Reflection' includes not only challenging our assumptions but exploring alternative actions. The inclusion of action turns 'Reflection' into 'Critical Reflection'.

Reflective Practice
Reflective Practice is a process of reconstructing one's experiences and identifying possibilities for action within a context of professional practice. Schon (1987: 31) describes his own reflective practice as "a dialogue of thinking and doing through which I become more skilled". Reflective Practice is a powerful form of ongoing professional development. Its primary purpose is to improve performance (Schon, 1983; Osterman & Kottkamp, 1993). Reflective Practice consists of cycles of Reflection-in-Action (Schon, 1983) through which the reflective practitioner reconstructs an experience in writing, considers its meaning, identifies actions and carries them out.

The Journal
Each cycle of Reflection-in-Action is recorded in the journal which is more than just a tool for writing down thoughts and actions. It is also a vehicle for the 'thinking-in-writing' that facilitates the reflective process. It is a chronicle of the practitioner's thoughts-in-action as well as their thoughts about actions.

The Investigation
In 1995, ITT participants who had completed or were completing the subject during 1994/95 were surveyed to explore the usefulness of reflective practice and journal writing within the subject. The investigation explored the following questions.

Journal writing as a teaching method within the ITT
- Should teachers provide a model for the initial development of journal writing skills?
- Does written feedback on journal entries enhance learning?
- Should teachers grade journals?
- Journal writing as a learning method within the ITT
- Is journal writing a useful and appropriate learning method?
- Does journal writing facilitate the development of critical thinking skills?
- Is reflective practice a useful means of professional development?

Data were collected by three methods. First, a combined fixed-choice and open-ended questionnaire was developed and mailed to all 1995 and 1994 ITT participants. As shown in Table 1 forty-three questionnaires were returned, a response rate of 56%. Second, interviews were held with a stratified sample of volunteers and nine respondents were interviewed. Third, a brief list of questions was sent to

Fig 1: Model of Reflective Practice

Different Approaches HERDSA Conference 1996
two staff development E-mail lists. Responses were received from four coordinators of similar subjects and eight teachers who were currently using journal writing with undergraduate students.

Table 1: Returns by Faculty

<table>
<thead>
<tr>
<th>Faculty</th>
<th>Number surveyed</th>
<th>Number returned</th>
<th>% returned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arts</td>
<td>10</td>
<td>9</td>
<td>90.0</td>
</tr>
<tr>
<td>Commerce</td>
<td>15</td>
<td>7</td>
<td>46.7</td>
</tr>
<tr>
<td>Creative Arts</td>
<td>3</td>
<td>1</td>
<td>33.3</td>
</tr>
<tr>
<td>Education</td>
<td>2</td>
<td>1</td>
<td>50.0</td>
</tr>
<tr>
<td>Engineering</td>
<td>8</td>
<td>1</td>
<td>12.5</td>
</tr>
<tr>
<td>Health &amp; Behavioural Science</td>
<td>15</td>
<td>11</td>
<td>73.3</td>
</tr>
<tr>
<td>Informatics</td>
<td>5</td>
<td>4</td>
<td>80.0</td>
</tr>
<tr>
<td>Law</td>
<td>2</td>
<td>2</td>
<td>100.0</td>
</tr>
<tr>
<td>Science</td>
<td>14</td>
<td>4</td>
<td>28.6</td>
</tr>
<tr>
<td>No Faculty (Library)</td>
<td>3</td>
<td>3</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>77</strong></td>
<td><strong>43</strong></td>
<td></td>
</tr>
</tbody>
</table>

Outcomes of the Investigation
Respondents offered no consensus about reflective journal writing, rather they offered conflicting views. This is to be expected with such a personal form of learning. Nevertheless strong trends in the data suggest that some common understandings and behaviours exist among many ITT participants. A summary of relevant data is include as Table 2.

Table 2: Data Summary

<table>
<thead>
<tr>
<th>Item</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. DATA model was useful</td>
<td>54%</td>
</tr>
<tr>
<td>2. DATA model was not useful</td>
<td>24%</td>
</tr>
<tr>
<td>3. needed more guidance</td>
<td>27.5%</td>
</tr>
<tr>
<td>4. did not need more guidance</td>
<td>55.5%</td>
</tr>
<tr>
<td>5. did not understand purpose of the journal</td>
<td>7.5%</td>
</tr>
<tr>
<td>6. journal should not be assessed</td>
<td>36%</td>
</tr>
<tr>
<td>7. journal should be assessed in some way</td>
<td>51%</td>
</tr>
<tr>
<td>8. assessment criteria were appropriate</td>
<td>23%</td>
</tr>
<tr>
<td>9. written feedback was of value</td>
<td>70%</td>
</tr>
<tr>
<td>10. would have completed the journal if non-assessed</td>
<td>47.5%</td>
</tr>
<tr>
<td>11. journal writing was beneficial</td>
<td>79%</td>
</tr>
<tr>
<td>12. assisted the development of critical thinking skills</td>
<td>63%</td>
</tr>
<tr>
<td>13. was in general a useful learning technique</td>
<td>79%</td>
</tr>
<tr>
<td>14. useful process for reflecting on teaching</td>
<td>79.5%</td>
</tr>
<tr>
<td>15. helped improve teaching</td>
<td>81.5%</td>
</tr>
<tr>
<td>16. helped make links between theory and practice</td>
<td>67%</td>
</tr>
<tr>
<td>17. assisted the formulation of teaching plans</td>
<td>75%</td>
</tr>
<tr>
<td>18. helped clarify teaching philosophy</td>
<td>66%</td>
</tr>
</tbody>
</table>

Journal Writing as a Teaching Method
The introduction of ITT participants to the framework of reflective practice and the DATA model was an important issue. Many understood the framework and:
• found the DATA model useful (54%)
• were comfortable with little guidance (55.5%).

Others had a variety of problems in that they:
• did not find the DATA model useful (particularly experienced journal writers who had developed their own approach) (24%)
• felt the need for more guidance (27.5%)  
• did not understand the purpose of the journal or what was expected (7.5%).

Different Approaches    HERDSA Conference 1996
Written comments indicated that some appreciated the chance to be self-directed in their writing while others found the task of journal writing ambiguous or frustrating.

There was strong negative response to assessment of the journal with 36% indicating the journal should not be assessed. Although 51% indicated the journal should be assessed in some way, only 23% believed the assessment criteria were appropriate. Assessment criteria were (a) number of entries (b) relevance to teaching and learning (c) depth of insights and discussion (d) links to supporting literature sources. From written comments and interviews it appeared that assessment of outcomes of journal writing rather than the journal entries as such was a more acceptable form of assessment. From interviews and written comments the strength of feeling among those who were opposed was significant.

Some commented that one person's reflections should not be assessed by another, that reflection was inhibited by assessment and that assessment led to 'imitation' journals. Others commented that journal entries should not be written to submission deadlines.

Most respondents indicated that they valued the written feedback on journal entries (70%) however a few commented that the task was invasive and written for the teacher rather than the reflector. In response to the question “Would you have completed the journal if it had not been an assessed component of the course?” 47.5% indicated they would.

Journal Writing as a Learning Method
79% of respondents indicated that journal writing was beneficial. The reflective journal assisted the development of critical thinking skills (63%) and was in general a useful learning technique (79%).

As a means of professional development the journal was a useful process for reflecting on teaching (79.5%), helped improve teaching (81.5%), helped make links between theory and practice (67%), assisted the formulation of teaching plans (73%), helped clarify teaching philosophy (66%).

Respondents who participated in the ITT as a condition of their appointment were less likely to agree that journal writing was a useful learning technique (59%) than voluntary participants (89%). Female respondents were more likely to agree that journal writing was a useful learning technique (86%) than male respondents (58%).

Discussion
The appropriateness of firmly placing ITT journal writing within a framework of reflective practice is strongly supported by the investigation. Although most respondents understood the context of journal writing, some did not see any purpose in it even though teachers had discussed reflective practice in class.

Adult learners need to know why they should do something and how it will be of use to them (Brookfield, 1986; Knowles, 1973). Tertiary teachers need a clear perception of the processes and purposes of reflective practice if they are to embrace it as an underlying principle of their teaching.

There is a tension between the requirement that participants submit a journal for marking and the ethos of reflection as a personal self-exploration undertaken by an adult learner. Reflective practice requires assumptions and strategies that encourage trust and collaboration (Agyris & Schön, 1974). Assessment does not fit well within this model. Ballantyne & Packer (1995) indicate that many journal writers, like many ITT participants, believe that where journals include personal feelings such material should be treated non-judgementally and therefore not be assessed. Assessment is not supported by Osterman & Kottkamp (1993) who stress that facilitators of reflective practice need to let others assume the responsibility for their own learning rather than placing the instructor as expert and the learner as subordinate.

For most ITT participants the Journal's benefits were that it provided an effective strategy for facilitating reflective practice and it stimulated critical thinking, a belief Ballantyne & Packer (1995) report as held by many teachers. The benefits of reflective learning reported by ITT participants are reported by many writers including Schön (1983, 1987) Osterman & Kottkamp (1993) Mezirow (1991) Brookfield (1988) and Boud et al (1985). The strong individual differences found here in approach to the task, needs for structure, perceptions of purpose and usefulness of the journal are also reported by other practitioners according to Ballantyne & Packer. Such differences may suggest that attitudes to Journal writing may have some relation to learning style.
Levels of reflection varied among participants. Some participants seemed to equate ‘reflection’ and ‘journal writing’ with behaviours such as ‘talking’, ‘thinking’ and ‘remembering’ e.g., “I do not keep a journal. I prefer to talk to my colleagues.” For these participants the journal was simply an opportunity to write down what they were thinking rather than reflecting at a deep, critical level. Mezirow (1991) believes reflection ‘at the level of premise’ is required before ‘transformation of meaning perspective’ can occur. Reflection at the levels of ‘content’ and ‘process’ may, however, lead to changes in teaching behaviours. Ballantyne & Packer (1995) also indicate that people will reflect at different levels.

From the data it appears that a variety of contextual and other factors outside the scope of the investigation have influenced the usefulness of the method. These factors, discussed below are: participant’s discipline; reason for participating in the ITT subject; time pressures; trust and the sex of the participant.

A comparison of survey return rates (Table 1) indicates that few participants from Science (28.6%) or Engineering (12.5%) returned the questionnaire. Compliance with a survey is more likely where a respondent perceives the issue as important (Hoinville & Jowell, 1978). The low return rates from Science and Engineering may indicate that journal writing has been less well accepted by participants in those faculties.

Approximately half of the participants surveyed attended the ITT as a condition of their appointment. This condition can lead to a negative view of the subject and a surface approach to learning which affects the perceived usefulness of the method (Gillett & Bell, 1996). Respondents who were participating in the ITT as a condition of their appointment were less likely than volunteers to believe in the usefulness of the reflective journal or the importance of reflection. Anecdotal evidence from teachers of the program suggests that a few mandated participants in each cohort have approached the ITT and activities within it with a negative mind set.

Written comments indicated a major problem for respondents was the time required to write the journal. Ballantyne & Packer (1995) record this as the most frequently reported difficulty in regular journal writing.

"Trust is perhaps the essential condition needed to foster reflective practice in any environment" (Osterman & Kottkamp, 1993: 45). This issue was not canvassed in the survey but was raised in questionnaire comments and interview by several participants. One interviewee spoke of journal writing as an intensely personal experience which, if shared with a teacher, exposed them to the criticisms of others. Another expressed a need to be able to trust in the facilitator who read their journal and to be able to perceive the facilitator’s reflectiveness.

To develop a safe climate the ITT teachers must themselves be competent reflective practitioners who fully understand and value, purposes and processes of reflective practice. They need to have the skills to respond to the writing of others with empathy and provide in-depth questioning.

From comparisons of male and female data it appears that journal writing was a less useful learning technique for male ITT participants than female ITT participants.

Changes to the ITT
As a result of this investigation a short report entitled Ideas for Implementing Reflective Practice in ITT Subjects (see below) was developed and the following changes were made to the ITT curriculum in Autumn 1996.

• The Journal is still introduced within a framework of Reflective Practice, but more time is spent in class discussing this framework. The DATA model is provided as an optional method.
• Journals are not assessed, however four journal entries are submitted for written feedback by a teacher. Participants are expected to write a brief report on their learnings from journal writing and reflective practice. This report is included in a Portfolio which is submitted for assessment at the end of the subject.
• The first journal entry is written in class time as an exercise in writing a ‘Teaching Platform’ (Osterman & Kottkamp, 1993). Participants work in pairs providing written feedback on the assumptions underlying the platforms, then discussing the platforms and feedback. The platform is then handed to a teacher for further comment. The fourth entry is also written in class time and is intended to include a refinement of the Teaching Platform.
Ideas for Implementing Reflective Practice in ITT Subjects

Introduction
Teaching and learning is contextual and all learners, and indeed all teachers, are different. There is no suggestion here that certain teaching methods or learning techniques should be applied prescriptively. The ideas here are offered not as a formula but as suggestions that provide for choice and flexibility according to the learning preferences of different participants, the philosophy and style of the teacher, and the context of the ITT course.

Ideas
Clear explanation of the purposes and processes of critical reflection and journal writing is vital. The journal should be set within a framework of Reflective Practice. Reflective thinking should be introduced as an ongoing method for continuous improvement and an essential professional competence. Opportunities should be provided for participants to reflect in class, perhaps beginning with platform writing and testing (Osterman & Kottkamp, 1993). They might explore the common process underlying all relevant methods such as the DATA method (Peters, 1991) the experiential learning cycle (Kolb, 1984) the action research cycle (Kemmis & McTaggert, 1988) and phases of critical thinking (Brookfield, 1988).

Whatever model is presented should be optional or may be adopted or adapted to suit the writer's purpose and style. Time to explore a method and discuss it in class would be useful early in the subject. Examples of different forms of journal writing, including the teacher's own writings, and tips from previous participants across a variety of disciplines would be useful source material.

Journal entries should not be assessed. Quality written feedback should be available and the idea of the journal as dialogue with another should be encouraged.

If assessment is to apply, acceptance will be more likely if the activity is well introduced and supported and if the purpose and criteria for assessment are clearly explained. Assessment should focus on the skills of reflection rather than the contents of the journal. Choices should be available for participants to demonstrate the capability being assessed and participants should be able to choose to keep some or all of their writings private. Other options that might be considered include:

- assessment of a report on the outcomes of reflection
- pass/fail grading system
- self-assessment and peer-assessment strategies.

In order to support the method teachers could make sure that they provide opportunities for journal writing and discussion of journal writings in class time. Other ideas are listed below.

- Introduce and utilise a variety of techniques to stimulate reflection, eg critical questioning, critical incident analysis, criteria analysis, metaphor analysis.
- Be aware of individual differences in acceptance of the method and provide support for inexperienced teachers and participants from science and engineering disciplines.
- Identify and utilise the experience of reflective practitioners within the group.
- Set up peer support pairs or small groups to work together during class exercises and encourage peer support outside class times.
- Encourage non-voluntary participants to use the journal to express and explore their feelings.
- Provide the option to reserve some journal entries as private writing.
- Begin with a 'learning log' to de-emphasise affect prior to implementing the journal.

Participants need to be able to trust in the reflective skills, confidentiality and non-judgemental approach of the teacher who responds to their writings. Therefore ITT teachers must themselves be reflective practitioners. They need to respond to the writing of others with empathy and provide in-depth questioning. The teachers could offer their own reflections to the group as a token of trust and to support a climate of self-criticism and peer support.

Conclusion
This case study indicates that the use of journal writing within the ITT program has been an effective method for developing the skills of reflection and the culture of reflective practice. Journal writing was a useful and appropriate learning method for most ITT participants. Journal writing facilitated the development of critical thinking skills and supported professional development.

From the case study it appears that implementation of journal writing in such a course is more likely to be successful where a specific model for the process of reflection is carefully introduced within a framework of reflective practice. Other factors leading to success may be the provision of in-class opportunities for journal writing and peer discussion as well as the provision of written feedback by a teacher. Formal
assessment of journal entries, while increasing the likelihood that participants submit journals to the teacher, seems to contradict the ethos of reflective practice and may set up barriers to reflective writing.

While results are generally positive journal writing was problematic for some ITT participants. This suggests a need for further exploration of differences in attitude to reflection and reflective practice according to sex, learning style and discipline. Results of the changes made to the ITT program in Autumn 1996 will be monitored and reported on at the end of the course.

References