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Reflective writing: a management skill.

Abstract

Purpose: This study analyses students' reflective writing in terms of identifiable outcomes and explores students' thoughts on reflection and reflective writing as a process.

Methodology: A mixed methods approach was taken with a qualitative analysis of 116 written reflections from MA Librarianship studying management over an eight month period. A quantitative statistical analysis assessed the relationships between reflective writing and a number of possible outcomes identified from the literature.

Findings: A significant relationship was found between 7 of 8 outcomes tested; (1) academic learning, (2) the need for self development, (3) actual self development, (4) critical review, (5) awareness of ones' own mental functions, (6) decision making and (7) empowerment and emancipation. There was some evidence of a relationship between non-academic learning and reflective writing, but it was not significant. A number of themes emerged from the reflective writings regarding reflection itself, with students seeing reflection as a positive activity, with benefits for the individual, groups and in the workplace, and identifying reflection as a skill that can be practiced and developed.

Research limitations: The reflection took place as an academic exercise and as such that is likely to have impacted on the nature of reflective content.

Practical implications: Reflection and reflective writing as a management skill has potential benefits for personal and professional development and improving work based practice.

Originality: This study differs from the previous literature in presenting statistical evidence to confirm the relationships between reflective writing and a range of potential outcomes.

Research paper. Key words: Reflection, reflective writing, library and information management, library students

Introduction

This paper reports on the reflective writings of a cohort of MA Librarianship students studying management as part of their programme of studies at the University of Sheffield. The "Management for Library and Information Services (LIS)" module, INF6005, spans two semesters. The aim of the module is to enable students to develop their management skills on a number of levels, self management, operational management, and strategic management. In this module, the students are encouraged to consider how the management theories they learn in lectures and seminars can be applied in working practice. All students have some experience of working in the library and information domain prior to coming on the course, and continuing personal and professional development is a strong theme throughout the students' programme of study. Helping students develop the skills to write reflectively is just one element of supporting their development. This is done through reading material, lectures and workshops on reflective writing and encouraging student reflection. One of the assessments for the "Management for LIS" module is a reflective journal, which asks students to reflect on their own

development as a manager. This assignment is worth 30% of the total module mark. The students are required to submit short reflections (approximately 250 words) throughout the duration of the module. At the end of the exercise interesting issues emerged regarding the outcomes identified within the students' reflections, and the students' own reflections on reflection. Moon (2007), comments that little research has been carried out as to the depth of reflection and its outcomes. This study will add to that literature.

Aims and objectives

The aim of this study is to analyse students' reflective writing.

The objectives of this study are:

1. To explore student reflections through their reflective writing.
2. To analyse the outcomes identified in their reflective writing.

Literature review

There are differing views and perspectives on reflection (Ghaye and Lillyman, 2000: 33). Schön (1983), is considered a classic scholar on reflective practice, and distinguishes between "reflection in action" and "reflection on action". "In action" occurs during an experience or event; "on action" looks back at a past experience or event. This idea of chronological consideration is developed by Wilson (2009) with "reflecting-on-future" as a means of exploring potential, and by Ertmer and Newby (1996: 18) who state that, "reflection is critical for transforming the knowledge gained *in* and *on* action into knowledge available *for* action."

Schön's (1983) view of reflection emphasises that reflection can be a way to bridge the gap between theory and practice, and uncover practical and tacit knowledge. Taylor (2006:15) identifies three types of reflection:

1. *Technical reflection* based on scientific methods, deductive thinking and empirical knowledge.
2. *Practical reflection*, "...for description and explanation of human interaction in social existence". This form of reflection is often applied to work situations and aims to be deeply reflective.
3. *Emancipating reflection* seeks to free the individual from power and oppression and leads to "transformative action" or change.

Practical reflection is the most likely method to be used in a work based situation and in higher education, though in practice these three types are likely to overlap or converge. Whilst Moon (2007: 192) offers a working definition specifically for the formal educational context to account for the constraints and conditions that can occur in such settings:

"Reflection/reflective learning, or reflective writing in the academic context, is also likely to involve a conscious and stated purpose for the reflection, with an outcome specified in terms of learning, action or clarification. It may be preceded by a description of the purpose and/or the subject matter of the reflection. The process and outcome of the reflective work is most likely to be a represented (e.g. written) form, to be seen by others and to be assessed. All of these factors can influence its nature and its quality."

Reflection is considered to be a process (Khan et al. 2006:5; Taylor, 2006:197) that can be developed and maintained to support continuous learning and personal and professional development (Watson, 2008). This process can include the process of reflective writing as a means of capturing the thought and experiences in journals, diaries, blogs etc. These writings can be formal as in a staff appraisal report, or informal as might be found in blog entries (Ghaye and Lilleyman, 2006: 106).

As the reflective practitioner matures in their reflective ability, it is possible to surmise that greater benefits should be acquired in the process. Moon (2007) identifies four levels of reflective writing: (See Table 1 for expanded descriptions of the categories.) descriptive writing, descriptive account with some reflection, reflective writing (1), and reflective writing (2). Latterly, Grant (2007) as a result of a systematic review of reflection in the Library and Information Sector identifies two main categories of reflective accounts or writing: “non analytical accounts” and “analytical accounts”: The relationship between Grant (2007) and Moon (2007) is shown in Table 1. Grant’s (2007) “non-analytical accounts” comparing to Moon’s two levels of “descriptive writing, and Grant’s (2007) “analytical accounts” comparing to Moon’s (2007) two levels of reflective writing.

Grant’s (2007) two categories of reflective writing	Moon’s (2007) four levels of reflective writing.
1. Non-analytical reflection Tend to be retrospective, possibly looking back over decades “..largely descriptive in content without any critical reasoning or considerations of the implications of events or experiences.”	1. Descriptive writing Descriptive and contains little reflection. May tell a story but generally from one point of view
2. Analytical reflection Tend to consider things in the more recent past “..attempt to understand the relationship between past experience and future practice...revisiting experience or situations, questioning motivations, attempting to pinpoint the reason why they experience a situation in a particular way, and contemplating how this might impact on future practice.”	2. Descriptive writing with some reflection A descriptive account that signals points for reflection while not actually showing much reflection. What little reflection there is lacks depth.
	3. Reflective writing (1) Description, but it is focused, with particular aspects accentuated for reflective comment. Shows some analysis, some self-questioning.
	4. Reflective writing (2) Clear evidence of standing back from the event. Shows deep reflection. Self-questioning but the views and motives of others are also taken into account. Observation that learning has been gained.

Table 1. Comparison of Grant’s two levels of reflective writing and Moon’s four levels of reflective writing.

Various outcomes of reflective practice have been identified in the literature (Bulman, and Schutz, 2004; Johns, 2004; Kahn et al, 2006:91; Moon, 2005; Watson, 2008;). Self development is reported as a practical outcome of reflective writing (Watson, 2008). Moon (2005) reviewed the literature to produce a longer list of outcomes including critical review, emotion, and learning.

This brief review of the literature shows that reflective practice has direct affinities with the aims and objectives of the “Management for LIS” module in blending theory and practice, supporting the awareness of knowledge development, theoretical and practical, and supporting continuing and personal development.

The analysis of the students’ reflective writings from the “Management for LIS” module confirms the findings from the literature in terms of the beneficial outcomes that can be experienced and a result of the process of reflective writing. This study analyses the reflective writing of students to gain a deeper understanding of the relationships between reflective writing and possible beneficial outcomes.

Method

A mixed methods approach was taken, with a qualitative analysis of the reflective writings to identify themes, some descriptive statistics illustrating the relationships between reflective writing and identifiable outcomes, and testing the hypothesis. The null hypothesis would be that there is no significant relation between deeply reflective writing and beneficial outcomes.

Student profile

Thirty one students were registered on INF6005 "Management for LIS" during the academic year 2007-2008. After ethical approval was gained for carrying out the study, 22 students agreed to allow their reflections to be used for this research (71% take-up). There were 7 male and 15 female students, who were all mature students (i.e. over 21 years of age). All having library experience, but with a mixed range of management experience, limited mainly to supervisory roles not necessarily in the library domain.

The students submitted a total of 116 reflective journal entries over an eight month period across two semesters from October 2008 to May 2009. Prior to the exercise, all students were unfamiliar with reflective writing.

The fewest number of journal entries submitted by a student was 4, the most was 7. The average (mode) number of journal entries per student was 5. The word count for the reflection ranged from 141 words to 597 words, with a mean average word count of 324 words.

Word guidance was applied in accordance with University regulations though students could supply additional material through uploaded files (additional file material was not included in the study). The reflective journal entries were submitted electronically via WebCT, the virtual learning environment used in the University. After each posting students received tutor feedback on the quality of their reflective writing based on Moon's (2007) four levels of reflective writing (see Table 1 for an outline of the levels). The students had been introduced to Moon's (2007) levels of reflective writing and other theories on reflection prior to being asked to submit work to their reflective management journals. They had also been given tutor support, lectures and practical workshops on reflection and reflective writing.

Data analysis – qualitative

Each piece of reflective writing was assessed against both Grant's (2007) and Moon's (2007) levels of reflective writing and categorised according to the criteria within the descriptions of each level.

Example 1. Non Analytical/ Descriptive Writing:

"I feel very strongly that training is a very important part of managing staff within an organisation. At my current place of work there is a big emphasis placed in training but it appears to be a slightly superficial exercise as although staff are actively encouraged to take part in training, such as NVQ or Enquiry courses, staff are never given enough off counter time. The staff are so limited as there have been a lot of staff leaving, this has taken priority over training staff..." [S.18]

Example 2. Analytical/Reflective Writing:

"I was asked on two separate occasions to train staff. Both experiences provided me with invaluable experience of supervising people who had differing abilities and were from diverse backgrounds...it

made me realise that good training involves responding to the needs of the trainee and adjusting my approach accordingly. ...This presented me with a significant test of my management abilities. ...I felt under pressure... I was not carrying out the training as well as I might have. But looking back I now appreciate the experience and how it might prepare me for future training opportunities." [S.9].

A list of outcomes from reflective writing was produced based on Moon (2005).

1. Academic learning
2. Non-academic learning
3. Recognition of the need for self development
4. Actual self development
5. Critical review
6. Own processes of mental functioning
7. Decision making
8. Emancipation and empowerment

Each piece of reflective writing was analysed against the outcomes above identifying explicit cases where evidence of the outcomes occurred e.g. "I also found that I was more confident with the work that I was producing." This statement shows evidence of "Actual Self Development" through the building of confidence in the individual enabling them to produce better work. Table 5 has further examples related to all the outcomes tested. A second researcher analysed a sample of the texts to ensure reliability in the assessment of the content. In effect, a thematic analysis of the content was carried out by coding the content; a method used by Ghaye and Lillyman (2000: 72) to analyse reflective content. Finally, the students' reflections on the reflective process were collated in order to assess the students' reactions and perceptions towards reflection and reflective writing.

Data analysis – quantitative

From the qualitative analysis, frequencies of the levels of reflective writing and outcomes from that reflective writing were input into SPSS for analysis.

Due to the small sample size $n=116$ reflective writings the statistics are reported against Grant's (2007) "analytical" (reflective) and "non-analytical" ("descriptive") categories of writing rather than Moon's (2007) four levels of reflective writing. Table 1 shows how levels 1 and 2 of Moon's categories compare to Grant's (2007) category of non-analytical writing (i.e. descriptive), and how Moon's (2007) levels 3 and 4 relate to Grant's (2007) category of analytical writing (i.e. reflective). Reporting against two categories of writing rather than four levels allows for greater reliability in the statistical evidence when dealing with small numbers.

The test used for the statistical evidence was a Chi Square test which tests for association between variables, and in this case reports on the association and significance of the relationship between the categories of reflective writing and each of the eight outcomes identified from reflective writing. The Phi test was also run which reports on the strength of the relationship between variables. Chi-square is commonly used with nonparametric categorical data i.e. nominally assigned data that is not normally distributed (Siegel, 1956; Field, 2005:686).

Limitations

The students' reflective writing was constrained to a word count which could restrict creative output. However, in management, writing has to be concise. The discipline requires points to be made in a succinct way. Thus the constrained word count was not incompatible with the discipline.

Students were new to reflective writing. This could be argued to impact on the quality of the reflective writing output and subsequent outcomes. However, inexperience means that across the course of the year there is likely to be a development in their reflective writing as students learn the process and mature in their ability to reflect. Having different quality of written output is useful to ensure breadth across the study.

This was an academic exercise and as a result may bias the results towards academic outcomes.

The categorisation of the writing is subjective and open to interpretation. To minimise this, a sample of the written statements was categorised by an independent researcher. Where difference in categorisation occurred, it was resolved with discussion in relation to the literature.

There may be other outcomes from reflective writing other than the eight tested here such as emotion or unexpected outcomes (Moon 2007: 193); those less relevant to the focus of this study, and academic process, and beyond the scope of this project. There is much potential for further study across a wide range of reflective situations.

Findings

Quantitative

Outcomes	Categories of reflective writing		Total
	Non-analytical (Descriptive)	Analytical (Reflective)	
Academic Learning	12 (28.6%)	30 (71.4%)	51 (100%)
Non-academic Learning	40 (41.2%)	57 (58.8%)	97 (100%)
Need for Self Development	19 (29.7%)	45 (70.3%)	64 (100%)
Actual Self Development	13 (27.1%)	35 (72.9%)	48 (100%)
Critical Review	30 (33%)	61 (67%)	91 (100%)
Awareness of Own Mental Functions	14 (22.2%)	49 (77.8%)	63 (100%)
Decision Making	5 (17.9%)	23 (82.1%)	28 (100%)
Empowerment & Emancipation	3 (12.5%)	21 (87.5%)	24 (100%)
Totals	136 (30%)	321 (70%)	457(100%)

Table 2. Crosstab showing counts and percentages of specific outcomes evidenced within the writings (Non-analytical/Descriptive and Analytical/Reflective).

The results in Table 2 show increased evidence of a range of outcomes from reflective practice displayed within the analytical writings of students as opposed to the descriptive writings of students. Students were more likely to show evidence of learning, self development, the ability to review issues critically, awareness of their own mental functions, ability to make decision and being empowered when they had mastered the art of reflective practice and the more deeply analytical reflective writing.

Outcomes of reflective writing	Pearson Chi-Square with continuity correction	df	Asymp. Sig	Phi

Academic Learning	5.391	1	.020	.234
Non-academic Learning	1.177	1	.278	.124
Need for Self Development	10.557	1	.001	.319
Actual Self Development	8.34	1	.004	.286
Critical Review	18.713	1	.000	.423
Awareness of Own Mental Functions	24.565	1	.000	.478
Decision Making	8.863	1	.003	.297
Empowerment & Emancipation	10.604	1	.001	.324

Table 3. Chi-square test (with continuity correction) showing the relationship between reflective writing and a range of outcomes.

The null hypothesis was accepted in relation to non-academic learning where the relationship between reflective writing and non-academic learning was shown not to be significant, $\chi^2(1)=1.17$, $df=1$, $p>0.05$; Phi .124. The null hypothesis was rejected against all other outcomes tested. There was a significant association between the level of writing and seven out of the eight outcomes tested (Table 3). The most significant and strongest relationship was in relation to reflective writing and the “awareness of own mental functions” where $\chi^2(1)=24.565$, $df=1$, $p<0.05$; with a Phi of .478 (maximum being 1). Phi tests the strength of the relationship, the closer to 1, the stronger the relationship. Referring to Table 2, it is when the writing is analytical rather than descriptive that this outcome is most prevalent. The results indicate that reflective writing was strongly related to the ability for “critical review” with $\chi^2(1)=18.713$, $df=1$, $p<0.05$, and a Phi of .423. Again referring to Table 2, the analytical writing was when this outcome is most prevalent. Reasonably strong relationships were evident in two other outcomes; “empowerment and emancipation”, and the “need for self development”; $\chi^2(1)=10.604$, $df=1$, $p<0.05$ and $\chi^2(1)=10.557$, $df=1$, $p<0.05$ respectively; with Phi of .324 and .319 respectively. Again, these outcomes are more likely to be evident within analytically reflective writing (see Table 2). The relationships between “decision making” and “actual self development” were moderate with $\chi^2(1)=8.863$, $df=1$, $p<0.05$ for “decision making” with a Phi of .297; and $\chi^2(1)=8.34$, $p<0.05$, with a Phi of .286. There was a weaker yet still significant relationship shown between reflective writing and academic learning with $\chi^2(1)=5.391$, $df=1$, $p<0.05$ and Phi of .234.

Qualitative

The students’ reflections on reflection were assessed and ten themes emerged.

1. The dynamic nature of reflection.
2. Reflection being useful in supporting career and professional development.
3. The benefits gained from reflective writing.
4. Reflective writing having potential in the student’s future employment/workplace.
5. Encouraging reflective practice in others.
6. Reflection being a positive experience.
7. Reflection being suitable as an individual or group activity.
8. Reflection supporting the improvement of own personal awareness.
9. The need to explore different methods of reflection.
10. Difficulties experienced in focussing sufficiently to be able to reflect deeply enough.

Evidence from student reflections on reflection	Analysis of the student comments
"I have started a reflective e-journal to be sure that I am exploiting teaching and work experience to the full...I feel this experiment is working well." S3.1	Reflection as a positive experience.
"Sometimes with competing demands there can be a tendency to panic and get stuck into the theory superficially - at the expense of making learning personal and reflective." S3.3	Difficulties experienced in focussing sufficiently to be able to reflect deeply enough.
"I expect that some of the insights from this year will evolve and expand, as the situations which emerge in my future workplace continuing the process of reflective learning began here." S3.5	Seeing the potential for reflection in future employment. Dynamic nature of reflection.
"I felt that we were all, collectively and as individuals, reflecting on where we had gone wrong." S5.2	Reflection being an individual and group activity.
"I took a great deal of time reflecting on what I had gained from the course so far, making notes and deciphering ways in which these skills could be applied to future jobs. An interesting aspect of this process was realising that the actual skill of reflection could be used as an integral tool within a future information profession, for instance with respect to evaluating a service to enable effective advocacy." S6.3	Benefits of written reflection. Seeing the potential for reflection in future employment. Dynamic nature of reflection.
"The process of reflection has heightened my awareness of the skills I am currently obtaining from the MA programme and has highlighted ways in which these can be transferred to future employment." S6.3	Reflection supporting the improvement of own personal awareness. Seeing the potential for reflection in future employment. Dynamic nature of reflection.
"The session concluded with a reflective exercise...I found the session to be extremely helpful in that it gave me practice reflecting on experiences that I have had in the past, but also by giving me ideas which I will be able to pass along to future colleagues, and employees: in particular the emphasis on continuing education." S8.2	Need to practice reflection. Seeing the potential for reflection in future employment. Encouraging reflective practice in others. Dynamic nature of reflection.
"The second session I attended was a lengthy session on reflective writing,...we were asked to work with a partner to discuss a recent experience that we had learned something from and to ask questions to each other as if in the role of a mentor... This method of asking questions to help someone else reflect is one that I plan to employ ... in management as it will help other library staff to reflect on their experiences." S8.2	The need to explore different methods of reflection. Seeing the potential for reflection in future employment. Encouraging reflective practice in others. Dynamic nature of reflection.
"I've learned that teamwork is a good strategy for quality service in an organization and I'm hoping I can share this reflection with my colleagues in my own workplace." S12.2	Seeing the potential for reflection in future employment. Encouraging reflective practice in others. Dynamic nature of reflection.
"One of the talks we received was on reflective writing...I found this talk useful in understanding the importance of reflection and reflective writing in my further career particularly when going for Chartership. I feel I have a better insight into...the importance of reflection as a key managerial skill throughout my professional life....many of the individuals attending this talk were managers aiming to develop their own reflective skills further." S15.1	Benefits of written reflection. Reflection supporting career and professional development.
"I enjoyed the idea of using web 2.0 techniques, which would create a more dynamic and participative form of reflection." S15.1	Dynamic nature of reflection. The need to explore different methods of reflection.
"I learnt that as a library manager it is clearly important to allow time for and encourage others to reflect." S15.1	Encouraging reflective practice in others.
"In my future employment I believe it will be vital to maintain records of my achievements ...This process will allow me to reflect on my achievements and also identify areas for training or improvement and will ultimately make it easier for me to apply for other positions in the future." S16.3	Benefits of written reflection. Reflection supporting career and professional development. Seeing the potential for reflection in future employment.
"Reflecting on my previous experiences has therefore enabled me to take my first step toward being an effective manager." S21.1	Dynamic nature of reflection. Reflection supporting career and professional development.

Table 4. Student reflections on reflection. (S3.1 (31/10/07) = Student ID number. sequential entry number of the reflective journal followed by the date of the reflective journal.)

Reflection on the whole is seen as a positive activity, with benefits for the individual, groups and in the workplace. Reflection is a skill that can be practiced and developed to gain the most potential from it.

The students' reflective writings were coded against a number of possible outcomes identified from the literature. The student's reflective comments in Table 5 support evidence from the literature of a range of outcomes that can be achieved as a result of reflective writing. When considered in relation to frequency data in Table 2, key outcomes are identified that show a relationship to increased positive outcomes when students master deeper reflection and analytical reflective writing.

Outcomes of reflective writing	Examples of evidence from student reflections
Academic Learning	"I learnt that ethics, when conducting a project like this is "very important" S2.2 "The October lectures have made me aware of the importance of these formal systems of organization that enable people carry out tasks in the workplace." S13.1
Non-academic Learning	"I think this (class exercise) enabled me to be more disciplined (thus management of myself), gave me better team working skills (thus managing others) and overall was a good exercise in time management." S19.1 "What I learned from this was the value of building experience in an organic way." S19.1
Need for Self Development	"I can be slightly insistent about getting my own way. Although I value myself as a good listener, I could benefit from considering other people's opinions more carefully." S17.2 "...I prefer to avoid confrontation, especially with people I know well. However, this is something that I need to overcome in order to be a successful manager." S17.5
Actual Self Development	"I also found that I was more confident with the work that I was producing." S18.5 "...I was able to be patient and communicate effectively." S9.1
Critical Review	"The assignments were equal in weighting which I should have been more aware of so I should have spent equal time on them both. That was very bad management on my part." S1.3 "In observing the management of others, I had failed to observe myself." S2.1
Awareness of Own Mental Functions	"I have reflected on this picture and concluded that I should not forget these experiences." S2.3 "I still have much to learn however particularly in managing stress..." S15.4
Decision Making	"I've noticed that every member in our group had special talents and contributions, which happen to make up for my own weaknesses...I've learned to respect the decisions by most people in the group." S22.5 "Looking to my first professional post, I have decided that gaining teaching experience is my priority to develop my management skills further." S4.6
Empowerment & Emancipation	"What keeps me going now is just the thought that someday, in my own way, I can be an instrument for change in the company I am working in....with the knowledge and skills that I will reap through my studies here, I believe I can do it soon. S12. 3 "While I found the position difficult while in it, I am grateful for the experience...The position also forced me to come out of my shell and be more opinionated and firm." S8.1

Table 5. Examples of students reflections linked to reflective outcomes identified in the literature.

Discussion

A range of outcomes from reflective practice have been identified throughout the literature (Kahn et al, 2006:91; Moon, 2005; Moon, 2007; Watson, 2008). This study goes further than providing anecdotal evidence, or qualitative statements of the outcomes of reflection, by providing results that are statistically significant across seven out of the eight outcomes tested (Table 2). The null hypothesis can be accepted in terms of academic learning where there was shown to be no significant relationship between non-academic learning and analytical reflection. This result may be due to the academic nature of the particular exercise. Moon (200?) states that there are factors that can influence reflective writing including the reason why you are writing and gives the example of "academic purposes".

There was still some evidence of non-academic learning identified in the students' responses, being on an academic course, and the reflection forming part of an academic assignment, it is understandable that the focus of the students would be academically oriented. Students commented on having learnt the "value" [S19.1] of experience, and of developing skills such as "team working" [S19.1]. It is apparent that the act or process of writing itself has allowed the students to explore issues that they might not otherwise have considered deeply and thereby raised their own awareness of either the situation they experienced or their own self; "I have reflected on this picture and concluded that I should not forget these experiences." [S2.3]. This process of learning through writing is supported in the literature by McGuinness and Brien (2006) who studied the research journals of 109 students. They found worthwhile learning experiences from the students writing reflective research journals.

With all the other outcomes tested the null hypothesis was rejected. Evidence of academic writing was apparent and significant ($\chi^2(1)=5.391$) supported by comments such as "I learnt that ethics, when conducting a project like this is "very important" [S2.2]. Moon (2005) considers reflection to be "an essential component of good quality learning" enabling learners to relate new material to what they already know. This was certainly evident in the student's comments where they frequently related past experiences to class based content; "The October lectures have made me aware of the importance of these formal systems of organization that enable people carry out tasks in the workplace." [S13.1].

The work or class based reflection frequently showed a need for, or actual self-development; "...I prefer to avoid confrontation, especially with people I know well. However, this is something that I need to overcome in order to be a successful manager." [S17.5]. The statistical analysis showed a significant relationship between both these outcomes and reflective writing (need for self development $\chi^2(1)=10.557$; actual self development $\chi^2(1)=8.34$). If the need for self development has been actualised, this shows a more deeply analytical process has taken place and actual change and personal and professional benefits have been achieved. Grant (2007) in her systematic review of reflection in the library and information sector reports similar findings where changes in personal and professional behaviour have occurred due to deep reflection (Grant, 2007). This change and need for change occurs as a result of "critical review", found to be highly significant in this study ($\chi^2(1)=18.713$); "In observing the management of others, I had failed to observe myself." [S2.1]. There is a process of reflection, critical review, and a decision is made that change is needed. The relationship between reflective writing and decision making was again significant ($\chi^2(1)=8.863$); "Looking to my first professional post, I have decided that gaining teaching experience is my priority to develop my management skills further." [S4.6]. During the decision making process students can become more "aware of their own mental functions", this outcome has being most significant and having the strongest relationship with the deeply reflective writing ($\chi^2(1)=24.565$); "I have reflected on this picture and concluded that I should not forget these experiences." [S2.3]. It was also noticed from the student comments that they gained in confidence and became empowered by their learning or deeper awareness of the situation they discussed "While I found the position difficult while in it, I am grateful for the experience...The position also forced me to come out of my shell and be more opinionated and firm." [S8.1]; showing a positive outcome in terms of "Empowerment and Emancipation" ($\chi^2(1)=10.604$).

The statistical evidence (Table 3) combined with the qualitative comments (Table 4 and Table 5) and the descriptive statistics shown in Table 2 show that reflection and reflective writing have strong benefits particularly when the reflection is deeply analytical in nature. Students did comment that when reflection takes practice, it has beneficial outcomes (Table 4).

"The session concluded with a reflective exercise...I found the session to be extremely helpful in that it gave me practice reflecting on experiences that I have had in the past, but also by giving me ideas which I will be able to pass along to future colleagues, and employees: in particular the emphasis on continuing education." [S8.2].

The need for practice is acknowledged in the literature (Watson, 2008: 30), with a failure to engage honestly resulting in little or no "reflective value". This view is supported by Hobbs (2007) who states that students may find reflection to be "distasteful or a waste of time", and where this attitude occurs it can lead to hostility and a lack of honesty in reflective output. Wilson et al (2007), state that negative issues are less likely if students are offered good supervision and support. A view shared by Russell (2005) who calls for further research on the strategies for teaching reflective practice.

Linked to the need to practice reflective writing, it was identified that trying different ways of reflection could be helpful, acknowledging different learning styles and individual need. "I enjoyed the idea of using web 2.0 techniques, which would create a more dynamic and participative form of reflection." [S15.1]. Students also saw the value in supporting and encouraging others, "I learnt that as a library manager it is clearly important to allow time for and encourage others to reflect." [S15.1].

The students mainly saw reflection as a positive experience, seeing uses for personal and professional development and in future employment; "The process of reflection has heightened my awareness of the skills I am currently obtaining from the MA programme and has highlighted ways in which these can be transferred to future employment." [S6.3]. The benefits that can be obtained in terms of self development are documented by Trickey (in Watson, 2008: 29) who gains from "a much more useful perspective on my [his] thinking." An example of professional development using reflection is the reflective report completed for professional Chartership of the Chartered Institute of Library and Information Professionals (CILIP).

The student comments show the dynamic nature of reflection, considering past experiences, considering current feelings and understandings, and thinking about the future. The students reflection on reflection shows evidence of meta-cognitive capabilities which supports researchers claims of greater awareness of themselves, people around them and the situations they find themselves in (Ertmer and Newby, 1996; Harada, 2002:1; McGuinness and Brien, 2006: 28). It can be argued that the act and process of writing the reflective journal has fostered deeper learning allowing them to exploit their experiences fully; "I have started a reflective e-journal to be sure that I am exploiting teaching and work experience to the full. So far I feel this experiment is working well." [S3.1]. The students' reflection on reflection as a positive experience was not expected, as none of the students had experience of reflective writing and many were very apprehensive about the process of reflective writing, its usefulness and their ability to write reflectively.

Conclusions

In this case reflective writing has shown to have a positive relationship with a number of outcomes, academic learning, the need for self development, actual self development, the ability for critical review, an awareness of ones' own mental functions, support decision making and empowerment and emancipation. There was some evidence of non-academic learning with reflective writing, but in this case was not significant. The most benefit was apparent when students were most analytical in their reflection and expressed that in deeply analytical reflective writing (see Table 2).

Students demonstrated their meta-cognitive abilities through their reflective writings and their comments on the reflective process itself. The process of reflective writing itself having enhanced the students' awareness of the situations, experiences, themselves and others involved. This showed the dynamic nature of reflection taking into consideration past, current and future possibilities for the individual or individuals involved in the reflective process. Their comments showed that reflection is a skill that can be practiced and developed to gain the most potential from it, but when it is mastered to its deepest level, then benefits are seen for personal development, professional and/or career development, and practice in the workplace. Students identified the need to explore different methods of reflective practice to meet individual learning styles and needs and they saw the potential in encouraging others to reflect.

The students in this study were given a lot of support in terms of academic reading, lectures, and practical reflective writing workshops and the opportunity to develop their skills. It is likely that this support helped their understanding of the concept of reflection, its potential, the value it might have for them in the world of work, and with their engagement of the task.

Reflective practice is not a clear concept to understand at first, it is also challenging to teach and can be demanding in the amount of student support that is needed, but with that commitment, the students can benefit from the skills they develop. Library organisations can benefit from these skills, with the reflective manager being more aware of others, themselves, their work situation.

Recommendations

For practice:

The continued encouragement of reflective practice is recommended both in academic and work based situations, this could be achieved formally or informally.

A greater awareness is needed of the levels of reflective writing and the benefits to be gained from reflecting and writing down those reflections.

Support needs to be provided for those engaging in reflection and reflective writing. Without that support reflection can appear to be an abstract concept with little apparent practical use.

For research:

Wider research is recommended covering a broader range of reflective situations with particular consideration and analysis of a wider range of potential outcomes of reflective writing. A mixed method

approach employing quantitative and qualitative data allows for reinforcement and triangulation of the findings.

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