

THE CHALLENGES AND POSSIBILITIES OF REFLECTIVE LEARNING IN HIGHER EDUCATION. RESEARCH FOCUSED FROM THE PERSPECTIVE OF UNIVERSITY STUDENTS ON FOUR DIFFERENT DEGREE COURSES

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Abstract

Despite an increase in university teaching practices based on reflective learning methodology (RL), only very few studies are found in the context of higher education aimed at determining students' perception of this approach to teaching and learning. The aim of this research was to ascertain the opinions of students on different university degree courses regarding the challenges, difficulties and contributions arising from the application of reflective learning methodology in their learning process so as to propose strategies for improving education. The study was carried out on four Bachelor degree courses at the University of Girona: Social Education, Environmental Sciences, Nursing and Psychology.

The research was conducted in two stages. In the first (2011-12 academic year), a questionnaire was administered to 162 students (43 from Social Education; 33 from Environmental Sciences; 31 from Nursing; and 55 from Psychology). One section of the questionnaire was specifically devoted to studying the perceptions of students participating in various RL experiences regarding the main difficulties they faced and the contributions of the RL to their learning process. Among the highlighted difficulties was the fact that RL requires a work process they are not used to and their lack of reflective writing skills. Among the contributions, the students felt that RL results in more complex and self-regulated knowledge, develops greater dynamic capabilities and increases the degree of reflection on learning processes and areas for improvement. In the second stage of the study (2012-13 academic year), four focus groups were held with students who had participated in the previous years' experience with the aim of gaining further insight into their perceptions regarding the challenges and contributions of RL. A total of 20 students participated, all of whom gave informed written consent. The sessions were recorded and transcribed in full and a thematic content analysis was performed. In all four groups the students stated that the experience had allowed them to improve their learning and become aware of their current situation and areas for improvement. As for the challenges, they cited difficulties in understanding the aims and purpose of RL, particularly at the beginning of the experience, together with problems experienced in writing about it, doubts about the level of openness required and uncertainty about how they would be assessed.

The research conducted suggested that RL has significant potential to connect academic activity with professional action. It also provided working guidelines for improving experiences carried out on the basis of RL. These include the need to clarify the methodology and present arguments for its use, so that students understand the type of work it will mean for them and the objectives they pursued. Students should also be provided with sufficiently clear guidelines regarding how they will be assessed (in relation to both activities and level of reflection). There is a need to build a group climate based on mutual trust, continuous feedback and the establishment of a support process that maintains this trust throughout the learning process.

Keywords: New Experiences for Curriculum, Generic skills, Reflective Learning.

1 REFLECTIVE LEARNING AT UNIVERSITY: STUDENTS' VIEWS

Reflective Learning (RL) is a methodology or a set of teaching methods with the common aim of making students aware of their learning process, promoting independent and self-regulated learning, and improving their personal and professional skills [1], [2]. RL includes two key elements: first, making sense of experience in relation to oneself, others and contextual conditions, and second, reimagining and/or planning future experience for personal and social benefit [3].

In recent years, the interest in developing practices based on RL in Higher Education has increased. Contributions of RL to higher education are related to it being a student-centred learning model that underlines the importance of the experience, both past and present. Also, RL gives an important role to the individual nature of the learning process, involving feelings and emotions in the construction of the knowledge. Learning is considered a cyclical process that includes affective and cognitive aspects and skills that work interdependently. So, the RL model is considered to be a useful approach that helps to avoid overly technical teaching, excessively focused on procedures. This model helps the students to cope with situations of risk and uncertainty in their professional lives, solving complex situations [2], [4], [5]. Reflective portfolio [6] and reflective diary [7] are two of the common strategies to develop RL. Generally speaking, levels of reflection are assessed by means of narrative systems.

Despite an increase in university teaching practices based on reflective learning methodology (RL), only very few studies are found in the context of higher education aimed at determining students' perception of this approach to teaching and learning. Learning to be more critical [8], identifying positive aspects of their own attitudes towards learning and profession [9] and increasing their motivation towards learning [8] are some of the positive aspects mentioned by the students. The students also recognized writing as an element that helped deepen understanding of situations that provided the basis for reflection [10]. On the other hand some difficulties are reported by the students: understanding the objective of the experience [11], exploring emotions and including the analysis of emotions in narrative accounts [12], and understanding the evaluation process of experiences based on RL [10].

The aim of this research was to ascertain the opinions of students on different university degree courses regarding the challenges, difficulties and contributions arising from the application of reflective learning methodology in their learning process so as to propose strategies for improving education. The study was carried out on four Bachelor degree courses at the University of Girona: Social Education, Environmental Sciences, Nursing and Psychology.

2 CONTEXT OF THE STUDY

The authors of this study are professors on different degree courses at the University of Girona which has integrated the Teaching Innovation Network on Reflective Learning since the academic year 2010-11. They are implementing different RL experiences at the University. The study is based on four of these experiences as shown in Table 1.

3 METHOD

The study was conducted in two stages over two years. In the first phase (year 2011-12) a questionnaire was designed and administered to the students participating in the experience. In the second (year 2012-13) four focus groups were established with students who had participated in the previous academic experience, with the aim of knowing information on their perceptions about the difficulties and contributions to the RL process.

3.1 Questionnaire

3.1.1 Instrument

A Reflective Self-Report Questionnaire on Learning was designed to get the student scores on various aspects of the teaching methodology. The questionnaire was divided into three sections: Section 1 provided descriptive data of students (age, gender, faculty, and year). In Section 2, information on the level of agreement or disagreement was obtained on various items by using a Likert scale (1 = strongly disagree, 5 = strongly agree) in relation to four areas: a) Knowledge about oneself; b) Connecting the experience with knowledge; c) Self-reflection on the learning process, and d) Self-regulation of learning. Section 3 aims to determine the perception of students about the main difficulties they found when incorporating the RL methodology in their learning process. In this third Section, multiple choice questions were included in which the student detailed the main difficulties of the RL and the contributions they could reported after the experience.

Table 1: Description of reflective learning experiences from each group.

Degree	Year	Students per group	Features of the experience
Nursing	3 rd	70-80	The reflective diary uses a methodological strategy that allows students to reflect on and learn from their experiences in the context of real-life practice [13].
Psychology	1 st	80	Reflective portfolio which aims to provide students with resources to address academic problems (time management, study strategies, etc.) and career guidance in relation to a better awareness of their skills and competences [14], [15].
Environmental sciences	1 st and 2 nd	80-100	As part of continuous assessment, students work on scientific experiences by means of videos and demonstrations of experiments in the classroom [16]. The assessment tool is a portfolio in which students reflect on the experiences individually throughout the course.
Social Education	2 nd	60	Reflective learning is used as a methodology to explore personal aspects that affect the professional practice of social educators. Reflective writing is the basic element used for constructing knowledge. The assessment tool is a portfolio in which students do various reflective writing activities [17].

3.1.2 Participants and procedure

The questionnaire was administered to a total of 162 students. They answered anonymously: 131 women (81%) and 31 men (19%), aged between 18 and 42 (Mean age of 21, standard deviation of 4). Data was obtained in class sessions of every bachelor: Environmental Sciences (n = 33), Social Education (n = 43), Psychology (n = 55) and Nursing (n = 31).

3.2 Focus group

3.2.1 Instrument

The focus group technique was used [18]. In our research, focus groups provided the ideal context for obtaining information regarding the strengths and weaknesses of RL and its usefulness, as well as other aspects students highlighted in the narration of their experience.

A common script was prepared for the different focus groups and adapted according to the RL experience and dynamic of each group. The script was as follows:

1. The novelty of the educational experience they had participated in.
2. Aspects that either helped or hindered them in doing the activities.
3. Positive/negative aspects regarding the work associated to the RL methodology.
4. The relationship between theory and practice.
5. The role of RL in improving their level of self-reflection and self-awareness as individuals and as future professionals.
6. The role of RL in improving how they learn and study.
7. The usefulness of RL in identifying strengths, weaknesses or gaps in their training.
8. The need for this type of work in their training as people and as professionals.

Each focus group was conducted in a classroom in the respective Faculties and moderated by one of the professors with whom the students had done the RL experience. The duration of the focus group ranged from 65 to 75 minutes. Each session was recorded on video and audio. A full transcript was produced for each focus group.

3.2.2 Participants

Four focus groups were formed to include students from the same degree subject (psychology, social education, nursing and environmental sciences). They had all participated in a previous reflective learning experience carried out during the 2011-12 academic year. All students who had participated in the experience were invited to join each focus group. Twenty students responded to the invitation. Table 2 summarizes the composition of the focus groups. The students received information regarding the aims of the study and signed an informed consent form which guaranteed anonymity of information and expressed their agreement to participate.

Table 2: Composition of focus groups

Degree course (2012-13)	Participants		
	Code	Sex	Age
Psychology	Psycho_1	Female	19
	Psycho_2	Male	19
	Psycho_3	Male	25
	Psycho_4	Female	21
	Psycho_5	Female	21
Social education	Educ_1	Female	21
	Educ_2	Male	30
	Educ_3	Female	22
	Educ_4	Female	21
	Educ_5	Female	21
	Educ_6	Female	24
Nursing	Nurs_1	Female	24
	Nurs_2	Female	24
	Nurs_3	Female	26
Environmental Sciences	EnvS_1	Male	19
	EnvS_2	Female	19
	EnvS_3	Female	21
	EnvS_4	Female	20
	EnvS_5	Female	19
	EnvS_6	Male	20

4 RESULTS

4.1 Questionnaire

4.1.1 Perceived difficulties in RL experiences

One of the questions was seeking information on the main difficulties when participating in the experience. Table 3 summarizes the number of answers for each of the options. The students could choose a maximum of three answers. As for the difficulties students reported the fact that the RL methodology requires a work process to which the students are not used to. This fact proves that the RL methodology is not broadly applied to the Higher Education environment. Students considered the lack of skills, especially at the time of writing reflectively, as one of the main difficulties, although most

were in favour of the lack of motivation or said they felt uncomfortable working with the RL methodology.

Table 3: Students' difficulties to integrate reflective learning on the learning process.

Answers options	Number Answers for each item	% on total Answers (N = 136)	% of cases (N=162)
a) I do not have enough skills to work with this methodology.	26	19	16
b) The required level for certain skills, such as oral or written skills were too high for me.	30	22	18.5
c) I am used to other learning methodologies.	82	60	50.6
d) I did not get the optimum help from teachers.	22	16	13.6
e) This methodology does not motivate me enough.	59	43	36.4
f) I am not feeling comfortable when using this methodology	33	24	20.4
g) Others	11	8	6.8

Students were also asked to give their opinion about the main contributions of reflective learning from the experience. The number of students who pointed out each of the options is shown in Table 4. Again, students could mark three options. The highest number of responses corresponded to the option a), i.e., a substantial number of students felt that reflective learning resulted in a more complex knowledge and enriched the development of greater capabilities and also favoured in identifying areas of improvement. The students' responses showed that reflective learning helped them to become more aware of their learning process and that RL provided strategies for improvement. It turned to be a support when developing new strategies to deal with the difficulties that arose during the learning process. Also RL helped them to be more aware of what they had learned and what they had to learn in the future.

4.2 Focus group

4.2.1 Perceived difficulties in RL experiences

With regard to difficulties, students said that at the beginning of the experience they had certain difficulties assimilating and understanding the objectives pursued by RL methodology. In some cases, this situation resulted in uncertainty or doubts when responding to the proposed learning activities (whether the reflective diary, in the case of nursing students, or the portfolio in the experiences of psychology and social education students, or open questions in the case of environmental sciences students).

Ten students said they had difficulties relating to tasks involving the use of reflective writing. These difficulties were, on the one hand, the novelty of having to put in writing personal situations in which emotions and thoughts are very much related. On the other hand, in the case of nursing, where the activity involved writing a reflective diary based on work experience, students reported difficulties in choosing appropriate situations to write about.

Table 4: Students' perceptions on reflective learning main contributions.

Answers options	Nr. Of answers for each item	% over total Answers (N= 152)	% of cases (N= 162)
a) The RL allowed me to understand richer and more complex skills and aspects that I should improve.	91	60	56.2
b) RL helped me to better understand the complexity of my future professional practice.	63	41.4	38.9
c) RL helped me to identify formation lacks, of which I was not aware of.	70	46	43.2
d) RL helped me to find new and creative strategies to solve my difficulties.	66	43.4	40.7
e) RL helped me to optimize my strong points and to strive to improve.	68	44.7	42
f) Others	3	2	1.9

In three of the experiences (psychology, nursing and social education), students were asked for a level of reflection that requires a certain level of personal openness. In these focus groups participants expressed difficulties in determining the degree of openness. Some of the students expressed a general concern with assessment.

4.2.2 Perceived contributions in LR experiences

Firstly, students agreed in highlighting the usefulness of self-reflection as a tool for better knowing themselves and as a tool that enhances their learning. Most of the students emphasized that the experience made them to reflect on their own competences and those needed to become a professional. It also helped to establish priorities, to internalize what they learn and relate it to situations of professional practice. These experiences also led students having to reflect personally on their experiences, on their own educational pathway, their feelings and emotions, especially in relation to professional activities.

One of the ideas on which there was most agreement between students who participated in the focus groups was that RL experiences helped them to become aware of their own learning. This feeling appeared in all of the groups. In-depth reflection helped them to identify positive and negative aspects of themselves in relation to learning and their learning processes. It helped them to reflect on what they already knew and relate learning to real-life experiences. There was a lot of agreement in considering the importance of writing as a strategy for improving the learning process. Students identified various advantages in putting ideas in writing. Firstly, writing helped organize and relate ideas, prioritize important issues and analyse different situations. Another aspect they pointed out was the usefulness of RL experiences in order to practising their profession in the future. This issue came up in all groups and 12 students commented on it.

5 DISCUSSION AND CONCLUSION

The conducted research suggests that RL has significant potential to connect academic activity with professional action. Through the different RL experiences, undergraduate students have understood the importance that reflection provides to the construction of their professional pathways and the role of reflective narration as a mean to enhance their reflection and, as a result, their learning. However, it is not easy for students to become engaged in RL methodology. Our research also provides working guidelines for improving experiences carried out on the basis of RL. These include the need to clarify the methodology and present arguments for its use, so that students understand the type of work it will mean for them and the type of aims to pursue. Students should also be provided with sufficiently clear guidelines regarding how they will be assessed (in relation to both activities and level of reflection).

There is a need to build a group climate based on mutual trust, continuous feedback and the establishment of a support process that maintains this trust throughout the learning process.

Indeed, our results show that student-teacher interaction is an important factor in determining student reflective learning experiences. Students who participated in the reflection process rated highly those questions related to the self-regulating learning. The structured formative methodology produced maximum reflection in terms of planning, regulating and evaluating students' learning. Students demonstrated a greater degree of reflection when the teacher promoted clear stands of the structured learning outcomes prior to the process of reflection along with the teacher's assessments during the reflection process. Ryan [3] and Tarrant [6] pointed out that the process of reflection may be a strictly individual process or a thinking process that needs to be complemented with teacher guidances. These authors argue that control on reflection fuelled recognition of reflecting thoughts and increased the individual frames of references. In addition, it was argued that recognition of complex skills may contribute to reinforcing a different type of knowledge that allows students to make connections between the contents and the ideas the students express.

Our study has focused on students' perceptions as a means of analysing the experiences undertaken. This can be considered as a limitation of our research. We are aware that the study RL methodology requires a global and multidimensional approach. Nevertheless the research carried out allows us to explore an important dimension to provide us with helpful information to continue reflecting about our own work as higher education teachers.

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