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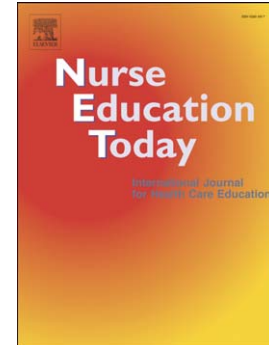
The evaluation of reflective learning from the nursing student's point of view:
a mixed method approach

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Title page

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Abstract

Background: Adapting university programmes to European Higher Education Area criteria has required substantial changes in curricula and teaching methodologies. Reflective learning (RL) has attracted growing interest and occupies an important place

in the scientific literature on theoretical and methodological aspects of university instruction. However, fewer studies have focused on evaluating the RL methodology from the point of view of nursing students.

Objectives: To assess nursing students' perceptions of the usefulness and challenges of RL methodology.

Design: Mixed method design, using a cross-sectional questionnaire and focus group discussion.

Methods: The research was conducted via Self-Reported Reflective Learning Questionnaire complemented by Focus Group discussion.

Results: Students provided a positive overall evaluation of RL, highlighting the method's capacity to help them better understand themselves, engage in self-reflection about the learning process, optimize their strengths and discover additional training needs, along with searching for continuous improvement. Nonetheless, RL does not help them as much to plan their learning or identify areas of weakness or needed improvement in knowledge, skills and attitudes. Among the difficulties or challenges, students reported low motivation and lack of familiarity with this type of learning, along with concerns about the privacy of their reflective journals and about the grading criteria.

Conclusions: In general, students evaluated RL positively. The results suggest areas of needed improvement related to unfamiliarity with the methodology, ethical aspects of developing a reflective journal and the need for clear evaluation criteria.

Keywords: Reflective learning, reflective journal, reflective writing, nursing students, nursing education

INTRODUCTION

The European Higher Education Area (EHEA) launched in March 2010 has led to structural and methodological changes that bring with them a new concept of the teaching-learning process, including new instructional methodologies and placing the student at the centre of the educational process. In this new context, learning is structured according to the formulation of established competencies for each degree, which in turn are achieved by completing learning activities related to course content. In order for new graduates to acquire professional competencies and commitment, their academic training also must guarantee that they are provided with two basic aspects of professional preparation: on one hand, the student must develop analytical and critical thinking skills; on the other hand, instructors must offer a variety of teaching strategies, including approaches that are interactive, student-centred and foster critical thinking (Valloze, 2009). In addition, meaningful teaching-learning strategies must be implemented that help students develop critical and reflective attitudes.

Reflective learning (RL) is an instructional methodology that can be applied in nursing education in a broad range of subjects, using different strategies to achieve a variety of objectives; however, the practicum experience is the ideal framework for this approach. The practicum is the backbone of the degree programme, and favours the establishment of a direct relationship between content and practice, allowing the student to integrate knowledge, skills and attitudes in the activities carried out within the framework of providing health care (Blanco et al., 2005). Students can also acquire a type of knowledge that is both personal and contextual, and is achieved through experience and reflection “during” and “about” their actions (Medina and Castillo, 2006).

Researchers have shown interest in RL, as reflected in increased scientific production related both to theory and methodology, but few studies have addressed RL perspectives and experiences from the student’s point of view (Epp, 2008) . The

present study aims to contribute insights from nursing students, a perspective that we consider fundamental to achieve continuous improvement of instructional practice.

BACKGROUND

Reflective learning is a methodology used in higher education that originated mainly in Anglo-Saxon settings. One of the most influential authors in the development of this educational approach is David Kolb, for whom learning is a dialectic and cyclical process. This author conceptualized learning as the creation of knowledge through the transformation of experience, and proposed an Experiential Learning model (Kolb, 1984). In Kolb's thinking, however, even with experience as a base, learning is not possible without reflection. In his model, learning is a five-phase cycle of concrete experience, reflective observation, abstract conceptualization, and active experimentation (Kolb, 1984; Kolb and Kolb, 2005). Experience is the basis of learning, but learning cannot take place without reflection. At the same time, reflection must be linked to action.

Another of the most influential authors, David Schön, emphasized the importance of the "reflective practitioner", who engages in reflection related to action or experiences. He defined reflection-in-action as productive thinking which is generally occasioned by surprise (Schön, 1987a), "leading us to question the assumed structure of what he calls knowing-in-action" (Cowan, 2006, p.50).

Although reflection has become established as an important component of nursing education and practice, there is no consensus definition of the concept. A recent review of literature (Nguyen et al., 2014, p. 1182), concluded that reflection should be defined as "the process of engaging the self in attentive, critical, exploratory and iterative interactions with one's thoughts and actions, and their underlying conceptual frame, with a view to changing them and a view on the change itself." At the same time,

reflection must be differentiated from critical thinking. As recently described by Roberts (2016, p. 7-8), critical thinking involves “the analysis and clarification of topics and areas of concern; the gathering and appraisal of evidence, research and theory; the questioning and challenging of assumptions, values and beliefs; the synthesis and application of information to produce alternative and innovative ways of thinking and doing things”. This teaching-learning methodology based on reflection-in-action differs from the traditional approach, which has been called technical rationality (Schön 1983,1987b), in which students learn about theory and then apply this to their practice, echoing the separation between intellectual and practical knowledge. The weakness of the technical approach in nursing education is based on its failure to bridge the so-called theory-practice gap by preparing nurses to learn from their practice, develop their thinking and ultimately make a difference in patient care (Bulman, 2008).

As a means of critically exploring one’s experience, RL in professional development generates a process of transformation and growth. The idea that a reflective practicum is necessary was proposed by Schön almost three decades ago. He was concerned about some aspects of practice in a professional context, and underlined the relationship between a reflective type of practicum and *know-how*, emphasizing tutoring over teaching and dialogue between the tutor and the student about mutual reflection-in-action: “(...) *it must cultivate activities that connect knowing and reflection-in-action of competent practitioners to the theories and techniques taught as professional knowledge in academic courses*”. (Schön, 1987a, p. 312).

In this sense, and in the context of clinical practice, the RL methodology offers a way of making sense of experiences, recognizing the learning that results, and building a solid base for further experiences that will lead to new learning (Boud, 2001). Various studies have considered positively the inclusion of RL in the Nursing curriculum (De Sales and Beddoes, 2007; Gross and Peden-McAlpine, 2007; Gustafsson et al., 2008;

Medina and Castillo, 2006; Toofany, 2008), especially because of its contribution to critical thinking and capacity to establish a relationship between theory and practice.

Among the various learning activities used in the reflective methodology, RL journals have been described as the written documents that students develop as they reflect about how they think about concepts, events, or interactions over a period of time. Keeping the RL journal facilitates reflective thinking and personal development, in addition to providing important feedback about how the student learns and supporting the development of reflective and critical thinking skills (Bisman, 2011; Craft, 2005; Jarvis, 2001; Williams and Wessel, 2004). In short, the journal is an instrument of personal and professional growth. In addition to promoting reflection, the main skills developed by RL journaling are introspection and dialogue, both of which are key elements for health professionals because of their importance in clinical practice (Gillis, 2001).

METHODS

Study Design

This cross-sectional exploratory study was carried out in April 2013 using both quantitative and qualitative research methods.

Settings and study sample

The study was carried out in the School of Nursing of the University of Girona (Spain), with the participation of third-year students enrolled in the required practicum course. The syllabus presented the skill-related learning objectives and described the reflective journal as one of the learning and assessment activities. Each student was assigned to a professor who was responsible for providing tutoring and guidance in developing the RL journal throughout the practicum. The quantitative analysis included 107 students; 3 of these students participated in the focus group for the qualitative study.

Instruments

The study was carried out in two consecutive phases: a quantitative phase, in which students were invited to complete a questionnaire evaluating the RL approach used in the course, and a second phase in which qualitative data were collected from a focus group.

The goal of the qualitative portion of the study was to obtain a better understanding of the quantitative findings (Creswell, 2005). We selected a mixed-methods sequential explanatory design (Ivankova et al., 2006), which involves the collection and analysis of quantitative and then qualitative data in two consecutive phases of the same study.

Survey Instrument

The evaluation or “measurement” of reflective learning is a concern, both in evaluating the methodology and assessing student reflection, the difficulties of which Sumsion and Fleet (1996) pointed out two decades ago. In recent years, several studies have developed questionnaires and evaluated their use, with the objective of evaluating the positive and negative aspects of the methodology from the student perspective (Bush and Bissell, 2008; Langrey and Brown, 2010; Schaub-De Jong et al., 2011). The present study used the Self-reported Reflective Learning Questionnaire, previously validated and applied in other studies assessing university instruction (Colomer et al., 2013, 2012; Fullana et al., 2013). The questionnaire has the following 4 sections:

Section 1 – gathers descriptive data (student’s age and sex)

Section 2 – measures agreement, using a Likert-type scale, with statements in 4 areas: self-awareness, connecting experience to knowledge, self-reflection about the learning process, and self-regulation of learning (1= Totally disagree, 5= Totally agree).

Section 3 – assesses student perceptions of the main benefits and difficulties of incorporating RL into their learning process. This section has two questions with

multiple possible responses, from which each student can choose a maximum of 3 options.

Section 4 – asks about the potential applications of RL in professional practice. One question asks about the student's likely use of RL in professional life and an optional follow-up question offers the possibility to explain the reasons for choosing the response selected.

Focus group

The aim was to obtain a general evaluation of RL implementation in their Nursing studies and more specific insight into the usefulness and difficulties they saw in this approach. The initial outline of topics for the focus group session was the following:

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

Ethical considerations

The present study was approved by university administration under the standard protocols for classroom research at our institution. All Nursing practicum students were invited to participate in the study, receiving information about the research objectives and design, and the voluntary nature of their participation in classroom research. Confidentiality and the anonymization of data was guaranteed under Spanish law

(BOE, 1999) protecting data of a personal nature; signed informed consent was obtained from focus group participants.

Data Collection Procedures

Faculty colleagues were asked to permit distribution of the questionnaire in their classrooms on agreed-upon lecture days. Students were given 15 minutes to review the questionnaire, ask any questions they had and, if they wished to participate, complete the questionnaire. This was an adequate timeframe in all classes surveyed. Students who completed the survey were also invited to participate in the focus group session, which had the objective of hearing their point of view in order to gather qualitative information about the RL methodology to complement the results obtained in the first phase of the study. Six students volunteered to participate, although only three students actually attended the focus group session; this number (3-4) has been described as the minimum needed to carry on a focus group discussion (Bloor et al., 2001). The participants had been interested and involved in academic improvement efforts throughout their student careers.

The focus group session was convened in the School of Nursing by two professors: a nursing professor who had participated in the RL initiative as an instructor and also coordinated the practicum course in which this methodology was used and another professor who took the role of observer.

The session lasted 70 minutes and was videotaped with the participants' permission. A verbatim transcript was later prepared by a research assistant.

Data Analysis

Quantitative analysis was done with SAS 9.2 software; qualitative analysis of the focus group transcripts used a combination of structural and descriptive coding processes (Saldaña, 2013). Our structural coding established a list of codes defined according to the study objectives (Milers and Huberman, 1994), which we then applied to the

transcribed focus group content. Content analysis of the coded fragments allowed us to identify and describe the ideas that were most important to the participants and their reflections on each topic.

Table 1 shows the major codes used to classify information related to two topics: the usefulness of the RL experience (Topic 1) and the main difficulties or problems perceived by students (Topic 2)

Insert Table 1 here

Analysis of the information classified in each code allowed us to identify the following analytical categories for Topics 1 and 2. For Topic 1, "Usefulness of the RL experience", the categories identified were:

- (a) the usefulness of self-reflection as a tool for knowing yourself and your own learning.
- (b) the usefulness of RL in raising awareness of your own learning.
- (c) the importance of written expression as a strategy for improving the learning process.
- (d) the impact of RL on the learning process: contributions, changes and improvements.
- (e) usefulness of the RL experience for exercising the profession in the future.

For Topic 2, 'Initial problems and difficulties with RL', the analytical categories were:

- (a) difficulties assimilating and understanding the aims pursued by the methodology.
- (b) difficulties associated with the use of reflective writing.
- (c) doubts regarding the degree of personal openness required.
- (d) concern regarding how they are to be evaluated.

RESULTS

In the quantitative phase of the study, the Self-Reported Learning Questionnaire was completed by 107 students (97 [90.65%] women and 10 [9.35%] men, mean age 23.29

[SD 4.68] years). The three women who participated in the focus group had a mean age of 24.66 years.

Validity testing of the responses to the Likert-style items of the four areas in Section 2 showed a Cronbach alpha reliability coefficient of 0.95; these results, similar to those obtained in other studies (Colomer et al., 2013), showed high internal consistency for these items (Gliem and Gliem, 2003).

Self-awareness, connecting experience with knowledge, self-reflection about the learning process, and self-regulation of learning

For each section, the global mean for the responses obtained indicates a positive evaluation of RL from the student's point of view. Results of the descriptive analysis (mean and SD) of Section 2 on the questionnaire are shown in Table 2.

Insert Table 2 here

The most positive scores were obtained in Sections 1 and 3: *self-knowledge and self-reflection on the learning process*. These sections also contained the items that received the highest overall scores on the questionnaire: *RL helped to analyse emotions in depth in everyday and professional situations and helped to identify aspects of knowledge and skills that are negative or could be improved*.

In contrast, Section 4, *self-regulation of learning*, had the lowest mean score overall, and had two items with the lowest scores on the questionnaire. These refer to methodological aspects of RL: *planning my learning (steps to follow, organization of time and material)* and *determining who or what I need to consult*.

Principal benefits and difficulties of integrating RL into the learning process

Section 3 of the Self-Reported Reflective Learning Questionnaire refers to the student's evaluation of the main benefits (Table 3) and difficulties (Table 4) they encountered with the RL methodology. The results obtained show a positive overall assessment of RL, although some areas in need of improvement stand out. Tables 3 and 4 show related items and the number of students who selected each of the responses offered.

Insert Table 3 here

Insert Table 4 here

The aspects of RL that students valued most were that the methodology helped them to *optimize their strengths* and *work on continuous improvement*, as well as helping them *discover training needs I hadn't considered* (Table 3). In agreement with the results obtained in Section 2, the main difficulties the students encountered were related to aspects of the methodology reflected in the responses that they were *accustomed to a different type of learning process* and that the methodology *does not motivate the student very much* (Table 4).

Use of RL in professional life

In Section 4, students were asked if they would use this type of learning approach in their professional life (yes/no) and 72% responded "yes", 26% said "no" and 2% did not answer the question. In response to the optional question about the reason for their answer, the following stand out among the most frequent explanations:

- Writing helps to organize my thinking.
- It favours critical thinking.
- It is necessary for improvement and change.

- It helps to detect strengths as well as weaknesses to be improved and changed.
- Thinking about an action after you have done it is a positive.
- It encourages self-criticism and one's view of oneself.
- It favours the development of personal criteria for use in future situations.
- Reflection supposes some kind of motivation for the future to carry out improvements, because it is a good way to evaluate yourself.

Along similar lines, the focus group participants offered the following comments:

"It helped me learn precisely for that reason. I focused myself, dedicated a little time based on my initial reflection to begin developing [the reflection] so it would be recorded. Another advantage is that after a few days you can go back to revise it and reconsider the situation (...). The fact that it is written down means that it is always there. It's not like the things you forget or they're in your head but you don't remember them, you know?" [Focus Group _Student_3].

"Each time I start a practicum, I try to go back and read my previous reflective journals in case I find myself in a similar situation and so I can see how I felt, how I wrote about it, how I worked on the narrative describing the situation, detailing the pros and cons of how I felt, how I would have liked to have felt, etc. That can change the situation. It's like self-help." [Focus Group _Student_1].

The most frequently expressed reasons why students had a negative response to the potential usefulness of RL in their professional lives (Section 4) were the following:

- *RL is complex.*
- *A person integrates reflection into normal life; it is not necessary to learn how to reflect.*

- *This is a new methodology and has some problems.*
- *It's not motivating.*
- *Reflection is subjective and personal and belongs in the private sphere.*
- *There is no need to express reflection in writing.*
- *General discomfort with the fact that another person will read the reflective journal.*
- *It is difficult to grade or evaluate.*

Among the negative aspects of RL, the following information obtained from the focus group stands out:

"The biggest problem I had was not knowing how to write down my thoughts and express what I really feel. I think the reflective journal should not be graded. It should be a medium for reflection and nothing more. A person's reflection is very subjective and I think it shouldn't be graded because it is so subjective."
[Focus Group Student 2].

"I think there should be an assessment tool to evaluate this reflection and an instrument should be created to facilitate the transition from a subjective view to a more objective one." [Focus Group Student 1].

These findings clearly reflect the students' positive evaluation of the principles that drive the methodology, although they suggest areas for improvement. Their suggestions are primarily related to the newness of the methodology and aspects related to writing the reflective journal, including privacy and anonymity concerns, as well as the evaluation criteria for the RL-based course.

DISCUSSION

In accord with other studies (Al-karasneh, 2014; Bisman, 2011; De Sales and Beddoes, 2007; Naber and Wyatt, 2014; Tsang and Walsh, 2010), our results show a positive overall evaluation by students when they integrate RL into their learning process. Nonetheless, some difficulties and/or barriers were noted that suggest future possibilities for research and improvement, mainly related to the newness of the methodology, the written narrative, the privacy of the reflective journal, and finally, how the RL component would be evaluated.

The integration of a new methodology into the teaching-learning process requires that several factors be taken into consideration. First, previous educational experience not only affects the implementation but may act as a barrier. Therefore, a connection must be made between the new approach and existing methodologies, so that students can understand what they are experiencing (Boud, 2001; Fiddler and Marienau, 2008; Platzer et al., 2000). Second, reflective writing as an outcome of reflection about the meaning of an experience is not as natural a process as verbal reflection, and therefore new thinking skills must be learned and integrated as well as the narrative writing skills needed to keep the RL journal. In this context, the role of the professor as guide or facilitator (ensuring clarity in roles and expectations) and institutional or structural support are both important (Brockbank and McGill, 2008; Fiddler and Marienau, 2008; Gopee and Deane, 2013; Harris, 2008; Jarvis, 2001), along with the context in which the RL process takes place (Gross and Peden-McAlpine, 2007).

With respect to the methodological development of the reflective journal, several levels of reflection have been established, from the more descriptive to those that require more advanced critical thinking, and have been used as a guidelines and for evaluation purposes (Bell et al., 2011; Chirema, 2007; Epp, 2008; Jensen and Joy, 2005; Liimatainen et al., 2001; Plack et al., 2005; Thorpe, 2004). Nonetheless, we consider it necessary to develop consensus on these models in the knowledge areas specific to

nursing. Another important aspect is the discomfort caused by keeping the RL journal, mainly because of the written expression of thoughts and feelings considered to belong to the intimate, private sphere (Hargreaves, 2004), which could influence the student's freedom in journal writing. These considerations highlight the importance of the ethical aspects related to confidentiality, privacy and anonymity for the student and others (Boud, 2001; Craft, 2005; Epp, 2008; Pavlovich, 2007; Thorpe, 2004), suggesting an important area to be taken into consideration.

Finally, reflective narration for purposes of evaluation can act as a barrier, mainly because of the subjective nature of RL, which does not align with the standardized criteria of more objective forms of evaluation (Boud, 2001; Brockbank and McGill, 2008; Cowan, 2006; Pavlovich et al., 2009).

To this concern, we must add the impact on freedom of expression and creativity that results from the inherent control and judgment that goes along with assigning a grade (Boud, 2001; Creme, 2005; Milinkovic and Field, 2005; Pavlovich et al., 2009). As Creme pointed out: "*If journal writing is valued as 'process' (...) then assessment that inevitably looks at a final product may distort that process*" (Creme, 2005 pp. 290). This viewpoint suggests the presentation of this learning activity as a process and not as a product to be evaluated.

A limitation of the present research is the small sample recruited for the qualitative portion of the study. If more students had participated in focus groups, more information would have been reported, improving data saturation.

CONCLUSIONS

Implementation of a new methodology requires continuous evaluation of the results obtained and of its strengths and weaknesses from the perspective of those actively

involved in the process of implementing it (students, professors and others with education-related responsibilities).

Our study showed that, in general, RL was evaluated positively by nursing students, although they pointed out some areas of needed improvement. These were mainly related to unfamiliarity with the methodology, the written reflections, and privacy issues related to the reflective journal, as well as the evaluation criteria. Our results indicate a need to develop standardized evaluation rubrics for reflective learning specifically related to the skills and competencies that nursing students must acquire from a curriculum that uses this methodology. The evaluation criteria used in these rubrics should evaluate the levels achieved in the reflective process and assess the concepts operationalized, with the objective of minimizing the potential for subjective interpretation. Our results also suggest the possible benefit of engaging students in introductory sessions on the theoretical basis of the reflective learning methodology before beginning its definitive implementation in the curriculum.

Implementation of RL requires time, involvement and effort on the part of students, professors and educational institutions. Future studies focusing on faculty perceptions of RL would complement our findings about the difficulties students experience, with the goal of developing strategies to improve results.

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Table 1: Codes used to analyse focus group transcripts (Topics 1 and 2)

TOPIC	MAIN CODES
1. Usefulness of the RL experience	Usefulness of the experience in relation to learning
	Usefulness of the experience in relation to self-awareness
	Long-term usefulness of the methodology/experience
2. Initial problems and difficulties with RL	Discomfort, attack on privacy
	Difficulty assimilating and understanding aims
	Uncertainty
	Difficulties with the written narrative
	Concerns regarding RL assessment
	Difficulties self-regulating time

Table 2: Results on Section 2, Self-reported Reflexive Learning Questionnaire (n=107)

BLOCK	RESPONSES: The teaching methodology used in this course helped me learn to ...	Mean	SD
BLOCK 1 Self-knowledge Self-awareness	1. Analyse everyday or professional situations in depth.	3.65	0.943
	2. Analyse my emotions in everyday or professional situations in depth.	3.81	1.010
	Mean, Block 1	3.73	
BLOCK 2 Connecting experience with knowledge	1. Relate knowledge to my own experiences, emotions and attitudes.	3.63	0.925
	2. Select the information and data that are relevant to a particular situation.	3.55	0.849
	3. Formulate or compare hypotheses in a particular situation.	3.22	0.872
	4. Think through/present the rationale for a decision taken in a particular situation.	3.72	0.888
	Mean, Block 2	3.53	
BLOCK 3 Self-reflection about the learning process	1. Improve my written communication skills.	3.52	0.978
	2. Improve my oral communication skills.	3.18	1.053
	3. Identify the positive aspects of my knowledge and abilities.	3.81	0.880
	4. Identify the aspects of my knowledge and skills that could be improved.	3.85	0.939
	5. Identify the positive aspects of my attitudes.	3.72	0.866
	6. Identify the aspects of my attitudes that could be improved.	3.83	0.906
	7. Become aware of what I learn and how I learn.	3.76	0.979
	8. Understand that what I learn and how I learn has meaning for me.	3.73	0.907
	Mean, Block 3	3.67	
BLOCK 4 Self-administration of learning	1. Plan my learning: steps to be taken, organizing materials and time.	3.21	1.037
	2. Determine who or what resources I need to consult.	3.19	1.001
	3. Regulate my learning, analysing the difficulties I have and evaluating how to resolve the problems I encounter.	3.66	0.920
	4. Evaluate the planning of my learning experience, the outcomes and what I would need to do to improve them.	3.62	0.874
	Mean, Block 4	3.42	

Table 3: Student perceptions of the main contributions of reflective learning processes

LIST OF OPTIONS (each student chose up to 3 responses)	FREQUENCIES
a) Reflective learning has resulted in more complex and enriched knowledge and capabilities, and also in identifying areas for improvement	36
b) I now have a better understanding of the complexity of my professional field	38
c) It helped me discover training needs I was not previously aware of	45
d) It helped me find new and creative strategies to deal with my shortcomings and difficulties	36
e) It helped me optimize my strengths and seek to continuously improve	51
f) Others	5
Total (107 students)	211

Table 4: Student perceptions of difficulties with the reflective learning processes

LIST OF OPTIONS (each student chose up to 3 responses)	FREQUENCIES
a) I don't have sufficient skills to work with this methodology	16
b) The skill level required, for example in oral or written expression, was too high for me	10
c) I'm used to a different way of learning	44
d) I needed more help than I received from the professors	20
e) This methodology didn't really motivate me	47
f) This methodology made me uncomfortable	27
g) Other	9
Total responses (107 students)	173

Highlights

- Nursing students evaluated the reflective learning (RL) method positively.
- Reflective learning leads to self-knowledge and awareness about learning processes.
- Unfamiliarity with the method affected student assessment of reflective learning.
- Reflective-learning journals (writing, privacy and evaluation) were the top concern.