



Enhancing self-regulated learning through using written feedback in higher education



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ABSTRACT

Feedback is considered to be a key component in teacher activity for the reflective construction of knowledge.

This paper aims to analyse the feedback provided by lecturers in order to enhance students' self-regulation of their learning. The methods used consisted in the analysis of the content of feedback and questionnaires administered to students and lecturers. The results show that most of the feedback provided by lecturers is close to that of feedforward. Students evaluate this feedback in a very positive way, as they consider it to be useful when working through the content. It also makes them more aware of the competencies that they should reach.

1. Introduction

The last few years have marked a growing interest towards the processes of feedback, because of the diversity of students and professional profiles but, above all, given the context of continuous assessment (Boud & Molloy, 2013). This means that the objective of Higher Education is to develop the students' capacity to be self-critical of their own work and to detect the areas which need to be strengthened, without depending on the teacher to evaluate externally the quality of their assignments. This paper aims to offer empirical evidence on written feedback in Higher Education through analysing different types of feedback and how this is related to the process of self-regulated learning from the opinion of students and lecturers.

2. Theroretical framework

2.1. Evolution of the concept of feedback: from remediation to feedforward

Feedback has been traditionally understood as that action by which tutors inform what they value or not about a student's work. However, as indicated by Boud and Molloy (2013), this vision raises various inconveniences: it involves a kind of feedback which is unidirectional, finalistic and generic. Faced with this vision, another proposal is advocated: '*feedback is a process whereby learners obtain information about their work in order to appreciate the similarities and the qualities of the work itself, in order to generate improved work*' (Boud & Molloy, 2013, p. 6).

This leads us to analyze the learning objectives more in relation to the learning process, rather than focusing just on the content. Thus, feedback received can be processed in order to improve future tasks and be evaluated accordingly.

The students' learning process and results are conditioned on the feedback they receive and the literature offers wide evidence on

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that. That is why this evolution of feedback leads us to review some of the principles which traditionally have been linked to positive feedback which the current literature now questions. In the first place, the *frequency*: the results demonstrate that the traditional idea of 'The more, the better' is not precise. Even though students request greater amounts of feedback, [Molloy \(2009\)](#) demonstrates that a lot of the feedback could be negative: students do not know how to prioritise information and do not apply it in subsequent tasks. This statement ties in with the perception students have of feedback and the dissonance with lecturers' self-perception. On the other hand, students are more used to associate feedback with marking, and not with the assessment of their work and the orientation provided by their tutors or peers ([Boud, 2000](#)). In addition, [Poulos and Mahony \(2008\)](#) demonstrate the difference between the perception of feedback and marks and have found that there is no homogeneity with respect to the understanding of the impact that feedback has had on learning and neither on its credibility. What does exist is a correlation between this credibility and the perception that the teacher has; an aspect that has been found in other studies ([Orsmond, Merry, & Reilly, 2005](#)).

Secondly, the *aim*: [Hattie and Timperley \(2007\)](#) show that the most useful feedback to increase performance is the one which is strongly linked to tasks; one that is specific and constructed on previous knowledge. This contrasts with the results of other studies ([Boud & Falchikov, 2007](#)), which consider that feedback should focus on the learning process.

Feedback which follows a mechanistic model, where is the most essential is not really sustainable in the medium term and impossible to maintain as a practice of professional development once the initial training period has finalised ([Boud, 2000](#)). To avoid this limitation, [Carless, Salter, Yang, and Lam \(2010\)](#) suggested engaging the students in dialogues on learning so that they begin to be conscious about the quality of it; giving feedback which encourages students towards self-assessment; committing students with their continuous learning (to plan their objectives and the process of achieving them) and propose tasks which have various phases or deliveries. If these four elements are borne in mind, progressing towards a more effective feedforward can be possible.

2.2. Sustainable feedback for self-regulation

Studies as carried out by [Nicol \(2011\)](#), among others, associate the learning process to sustainable feedback and identify benefits in the acquisition of students' competencies especially those connected to self-regulated learning. The author proposes a model of analyse of a good feedback which concurs fully with these principles and validates the aptitude for self-regulated learning as an essential competency for university students today.

This approach leads us to consider the characteristics which sustainable feedback should possess in order to promote self-regulated learning. In the first place, sustainable feedback consists of four aspects ([Hounsell, McCune, Hounsell, & Litjens, 2008](#)): a) Involves students determining what a quality result is; b) Stimulates students to develop self-assessment skills; c) Enables students to set objectives and plan the learning process; and d) Fosters assessment tasks which increase student commitment and dedication.

The effectiveness of feedback focused on self-regulation depends, according to [Boud and Molloy \(2013\)](#), on six elements. In the first place, self-regulated feedback is characterised by the capacity to create internal feedback (motivates students towards the follow-up of their engagement with their work). Secondly, self-regulated feedback is distinguished by the ability for self-assessment (1st step: the activities with which students review and evaluate their competencies; the need to have more knowledge about a topic and the way they think about it; 2nd step: mental strategies to plan tasks, correct errors). As [Boud and Molloy \(2013\)](#) put forward; for self-regulated feedback to come about, students need to be able to evaluate critically the quality and impact of their own work throughout the process and the outcomes they have obtained, as well as critically evaluating the quality and impact of the work of their peers (and the second activity is essential for the first to happen). Thirdly, self-regulated feedback is characterised by the readiness of the student to invest effort in analysing and incorporating the *feedback*, hence it must have some sort of impact on the student ([Zimmerman, 2000, p. 14](#)). Fourthly, self-regulated feedback is characterised by the level of trust in the answers (if the students have little confidence in what they have done and receive feedback focused on just weaknesses), and therefore this feedback could be disregarded. In this case, more instruction and less feedback are required and this links in with the perception that students have regarding the processes of feedback.

Fifthly, self-regulated feedback is characterised by the attributions with respect to success or failure (the vision students have about the causes of their success or failure has a major impact on the efficacy of feedback, and this depends on the clarity of the process) ([Nicol, 2007](#)).

Last but not least, self-regulated feedback is characterised by the capacity to request help. This help could come from documents, from peers or from lecturers, be it oral or written. However, [Boud and Molloy \(2013\)](#) affirm that lecturers frequently experience feedback as an 'annoyance' in that they identify it as a practice focused on errors and weak points and it depends on them exclusively, thus generating work overload.

2.3. Characteristics of written feedback

While at present, numerous experiences of the provision of feedback in various formats exist ([JISC, 2010](#)), tutors usually offer interactive feedback in the classroom (debates, presentations, laboratory experiments, etc.) or written feedback on written assignments. The proposal of [Strijbos, Narciss, and Dünnebier \(2010\)](#) focuses on identifying four criteria and various sub-criteria which permit the defining of conditions which sound written feedback should possess: simplicity, structure, conciseness and stimulation.

While the proposal of [Strijbos et al. \(2010\)](#) is very focused on writing quality (mostly syntactic and grammatical) which feedback should provide, the proposal of [Lilly, Richter, and Rivera-Macias \(2010\)](#), is more generic and focuses on three aspects: content, style and clarity and so offers clues as to how feedback should be with respect to these three axes.

The proposal of [Nicol \(2011\)](#) is even more generic or broad, for whom written feedback should fulfil some formal characteristics

regarding the way in which it is presented but also with respect to the purpose, frequency, content and specificity of the feedback. This author proposes a type of feedback that is easy to understand, comprehensive, flexible and contextualised, among other characteristics.

As can be appreciated, some aspects which improve the efficacy of feedback and that are recurring are: sufficient time should be allowed; it should be specific (as demonstrated by [Strijbos et al., 2010](#)) and it must be positive and constructive ([Shute, 2008](#)). There are also recurring aspects with respect to format, clarity, specificity, precision and dimension.

It is within this conceptual framework that three objectives for this study were established: firstly, to analyse the content of the feedback through a pattern of analysis of written feedback based on 3 distinct categories and 19 indicators and secondly, explore different relationships between feedback and the perception of lecturers and students with regard to the process.

3. Data and methods

3.1. Description of the scenario of the study

This research was implemented in four Spanish universities (University of Barcelona, Rovira i Virgili University, Autonomous University of Barcelona and University of the Balearic Islands); all of them are public and face-to-face universities. 283 students and 7 tutors participated in the study.

The experience is based on the use of a specific type of electronic platform for the assessment of the students' assignments (titled CAT: Competency Assessment Tool), developed with the objective that the tutors could carry out a follow-up and assessment of the evidence presented periodically by their students and that this could self-regulate their learning process.

The experience followed the steps described below.

1st Step: Each faculty member participating in the study identifies the competencies to be assessed through the CAT platform.

2nd Step: Each competency is split up into a series of indicators. The specific activities to be developed by students in assignment format (free and open access) are then decided, thus an analysis of the competencies of the subject involved in the project was made and between three to four tags were created for each of them.

3rd Step: Students join the platform and carry out their assignments, tagging each entry in accordance with the assigned indicators.

4th Step: Each faculty member must provide periodic feedback on the work carried out through the CAT platform, which allows him/her to have access to the box with competencies posted by students, assess if they are achieved (blue) or not (red) and add any comments.

The experience was carried out in six subjects in the field of Education Sciences; compulsory subjects covering fields like educational management, educational assessment, teaching and innovation. Several assignments were carried out during the course's life-time in each one of the subjects by the students either in groups or individually. They also had the possibility to provide some self-assessment where they had to express to which extent they were conscious of their learning and believe they have developed or implemented such competencies. In this way, the platform contains a record of all the feedback available, thus providing the opportunity of a general vision of the student's competency-based development. [Table 1](#) shows the details of each one of the subjects in which the study has been conducted.

Although [Table 1](#) presents all the specific experiences of the research project carried out, this contribution seeks to present all the data in a holistic approach.

3.2. Methods and instruments

At the end of the 2012–2013 academic year, the experience described above was evaluated through a mixed research methodology. The following techniques for the gathering of data have been used:

- Surveys with questionnaires to the participating students
- Surveys with questionnaires to the participating tutors
- Analysis of the content through teacher feedback

The two questionnaires contained closed items, in which each item had to be evaluated in a scale of 1 to 10 and 1 to 5 respectively. The participants could also freely express their opinion in an open section of the questionnaire. Assessment was requested on the following aspects:

- satisfaction in relation to the experience
- assessment of learning
- feedback received
- opinion about competency-development

The data gathered through the questionnaires has been completed with the data gathered through the analysis of the content of the feedback provided by the tutors. For that purpose, a guideline of analysis has been designed based on the proposal of [Kleijn, Mainhard, Meijer, Brekelmans, and Pilot \(2013\)](#) which evaluated the feedback through the following categories: a) feed up (goal-

Table 1
The experiences developed in the project: participants and scenarios .

University/Case	Degree	Course	Type of Course	Number of credits	Assessment	Number of students	Number of assignments	Feedback frequency	Type of assignment
Universitat de Barcelona	Undergraduate studies in Pedagogy	Organization and management of educational institutions Practicum	Compulsory	6 credits	20% of final grade	56	3	After each assignment delivery	Individual
Universitat de Barcelona	Undergraduate studies in Primary Education: Master degree in Education	Training and Assessment of learning	Compulsory	30 credits	15% of final grade	14	6	After each assignment delivery	Individual
Universitat de Barcelona	Undergraduate studies in Educational Institutions	Counselling and Guidance on Educational Institutions	Compulsory	5 credits	50% of final grade	15	3	After each assignment delivery	Individual
Universitat Rovira I Virgili	Undergraduate studies in Pedagogy	Reflexive Practice and Innovation in Teaching	Compulsory	12 credits	50% of final grade	14	3	After each assignment delivery	Team-work
Universitat Autònoma de Barcelona	Undergraduate studies in Pedagogy and Social Education	Organization and groups	Compulsory	12 credits	10% of final grade	75	3	After each assignment delivery	Team-work
Universitat de les Illes Balears	Undergraduate studies in Early Childhood Education	Reflexive Practice and Innovation in Teaching	Compulsory	6 credits	40% of final grade	109	6	After each assignment delivery	Individual

Table 2

Guidelines for the analysis and categorisation of the content of the feedback of the tutors: items and definitions.

Indicators	Definition
DIMENSION 1. The feedback focused on strengths	
Task	The teacher makes a judgment expressed in positive terms related to content in the platform.
Progression	The teacher makes a judgment in positive terms related to the development of the student comparing with his previous contributions.
Tagging	The teacher positively appreciates the assigned tags to the contribution of the platform considering the relationship and consistency of the competency's label with the platform's contents.
Competencies	The teacher positively values the acquisition of competencies, regardless of their labeling.
Formal and structural issues	The teacher appreciates the formal and/or structural aspects of the text.
DIMENSION 2. The feedback focused on the weakness	
Task	The teacher makes a judgment expressed in negative terms related to content in the platform.
Progression	The teacher makes a judgment in negative terms related to the development of the student comparing with his previous contributions.
Tagging	The teacher negatively appreciates the assigned tags to the contribution of the platform considering the relationship and consistency of the competency's label with the platform's contents.
Competencies	The teacher negatively valued the acquisition of competencies, regardless of their labeling.
Formal and structural issues	The teacher does not value the formal and/or structural aspects of the text.
DIMENSION 3. The feedback is going to feedforward	
Generic	The teacher gives instructions or recommendations, in general, to improve future student posts.
Peers	The teacher gives instructions or recommendations, based on peer's posts, to improve future student posts.
Documentation	The teacher gives instructions or recommendations, suggesting reading, use and/or application of scientific documentation, to improve future student posts.
Self-observation	The teacher gives instructions or recommendations, suggesting a self-observation of their own performance, to improve future student posts.
Concrete action	The teacher gives instructions or recommendations, suggesting concrete actions, to improve future student posts.
Task	The teacher gives instructions or recommendations, suggesting carrying out some specific tasks related to disciplinary content, to improve future student posts.
Competences	The teacher gives instructions or recommendations focused on the competencies' development degree, to improve future student posts.
Tagging	The teacher gives instructions or recommendations focused on the competencies' tagging, to improve future student posts.
Structure	The teacher gives instructions or recommendations focused on the formal and/or structural issues, to improve future student posts.

setting), b) feed back-forward, c) positive elaboration, d) negative elaboration, e) focus on task, f) focus on self-regulation.

Table 2 defines each one of the dimensions and indicators which have been considered. Three dimensions of analysis have been established: feedback focused on strengths, feedback focused on weaknesses and feedforward. Each one of these dimensions was divided into several indicators as follows: feedback centred on the task, on student progression, on the tagging on the platform, on the competencies or on formal and structural aspects of the assignment. In the case of feedforward, some others were added such as: feedforward is generic, the role of peers, regarding the documentation, self-observation or concrete action. These dimensions, indicators and the description of each one of these are described in Table 2.

3.3. Analysis of the data

Based on the exploratory nature of the study, the data gathered by means of the questionnaires is examined through descriptive and inferential statistical analysis. After the descriptive-exploratory analysis, different inferences have been carried out and some relationships between feedback and aspects of the processes of assessment have been tested (relationship with the performance of the students or with the level of their satisfaction of the experience). In addition, an analysis of the semantic perspective of the content of the messages of feedback provided by the tutors was carried out in accordance with the classification of the types of feedback developed in the present project. A total of 1206 texts (semantic units) have been analysed from the point of view of their content.

4. Results

For the organisation of the results section, the process of feedback and the different types of feedback were firstly analysed according to the classification carried out within the framework of the study. In this first part, the data comes from the semantic analysis of the feedback and the analysis of the questionnaires of students and tutors. Secondly, some relationships between the assessment that have been done on the experience by the actors involved (students and tutors) and their satisfaction with the experience were explored.

4.1. General overview of the process of feedback and types

The analysis of the data demonstrates that the tutors offer feedback of all types considered in the theoretical framework, however,

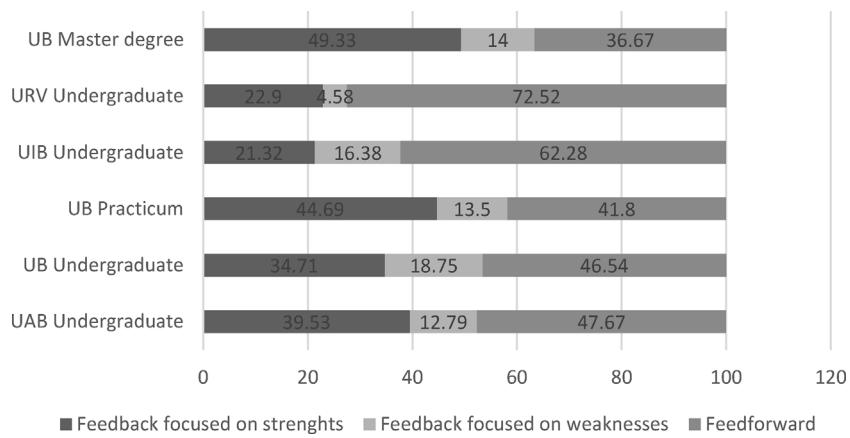


Chart 1. Distribution of the types of feedback by cases.

the analysis of frequencies show that 33.4% of the feedback provided by the tutors is focused on strengths, 13.7% on weaknesses and 52.8% offer indications of the feedforward type. It could be considered, just as the data demonstrates, that the students not only received information on the strengths of their tasks through feedback but, above all, indications about how they can continue improving them to become better learners. Most of the feedback provided by the tutors is oriented towards feedforward, and helps them to self-regulate their own learning processes, given that it deals with a type of feedback which contains both indications of verification (offers information with regard to what would be a correct response) and elaboration (offers information on how the work can be improved to reach the competencies raised in the learning activity).

The analysis of cases reveals that while feedforward continues to be dominant in almost all the scenarios, in the case of the Master's programmes and the Practicums which are those which show higher levels of satisfaction, feedback focused on strengths is prioritized more than other types of feedback as shown in [Chart 1](#).

4.2. Feedback focused on strengths

The first category of feedback is the one focused on strengths and it is where the tutors give information with respect to the content expressed in positive terms. With regard to the messages, the work done is assessed and lines of actions are suggested which could have supported a better response, however, the implementation of such improvements is not linked to future tasks. Once this type of feedback is analysed, it was seen that most of the information on the guiding principles of feedback are oriented towards the task, followed by comments related to the competencies developed. It should be taken into account that this study is focused on an experience where the students are conscious about the list of competencies that they could tag in their own work in terms of the indicators of each competency.

The distribution of the type of feedback focused on strengths in terms of indicators is shown in [Chart 2](#).

The feedback related to competencies focuses mainly on the fact that the teacher values positively the connection between the competencies indicated by the students and their coherence with the content presented in the assignment.

The least common feedback is that focused on the progression of the student and the tagging of the contents of their work.

In an analysis of the cases, the data shows that in the contexts of Degree Studies, feedback usually focuses on the task, whereas in Practicums and Master environments, a significant part of the positive feedback focuses on the competencies developed by the students.

The students responding to the survey consider that the feedback provided by the tutors has allowed them to self-evaluate in

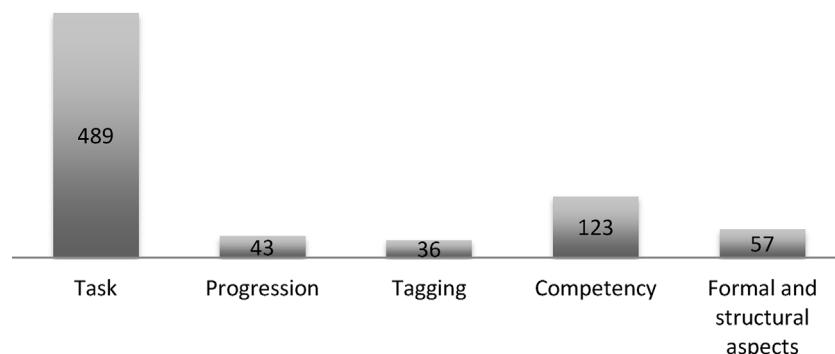


Chart 2. Distribution of feedback focused on strengths – by indicators.

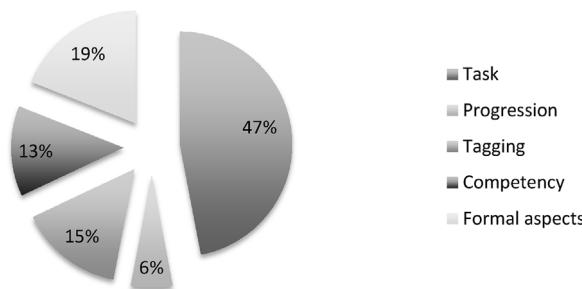


Chart 3. Distribution of feedback focused on weaknesses – by indicators.

relation to the competencies to be developed in the subject (an average of 3.6 out of 5); and has permitted them to increase their level of reflection (an average of 3.3 points out of 5); and a raising of awareness regarding the development of competencies to be reached (an average of 3.5 points out of 5). When this amount of data was related with the level of satisfaction of the students with the experience, it can be observed that there is a positive relationship between the level of satisfaction and the type of feedback focused on strengths (the case of the UB Master with an average of 8.2 out of 10 and the UB Practicum with an average of 8.1 out of 10).

If all this data is contrasted with the data gathered from the questionnaires administered to the tutors, it could be confirmed that the perception tutors have about their feedback coincides. At the end of the experience, more than half perceive that they focused on the strengths of the task (an average of 3.7 out of 5), followed by feedback which makes reference to competencies.

4.3. Feedback focused on weaknesses

With relation to the second type of feedback, the one which places emphasis on the weak points of the work and the distribution by indicators, it can be observed that from the total number of feedback units recorded, as is the case of feedback focused on weaknesses, most of it is focused on the task, followed by formal aspects. According to the tutors' opinion collected through the questionnaires, they tend to organise their feedback with how students resolve the task, showing up their weaknesses with it and in those formal aspects, like that of writing where there is a lack of rigour in respecting the standards of wording or citing and the structure of the discourse. The data shows that this time, feedback focused on weaknesses is not related to competencies and even less to the progression in the development of the task, and these two aspects appear less represented from the tendencies of the tutors. The distribution of the feedback by indicators is showed in [Chart 3](#).

Analysing this type of feedback from the cases, the data shows that the teacher focuses on the tasks in all the scenarios, except in the case of the UIB where feedback focuses principally on the tagging of the competencies and in the Master where the structural and formal aspects are concentrated.

4.4. Feedforward

With regard to feedforward, the data shows that the tutors focus on very diverse aspects when they want to orient their students towards a better accomplishment of future activities.

In function of the indicators of this type of feedback, the vast majority of tutors tend to focus their comments towards the improvement of future tasks. This piece of data suggests that although there was no initial proposal oriented in this line, tutors tend to point their comments towards the future learning of their students. The data provided by the questionnaires administered to the tutors who have carried out the experience reveals that with a result of only 2.4 points out of 5, they perceive that their messages are oriented towards feedforward, which shows that tutors do indeed have a more 'proactive' attitude than what they really acknowledge. As regards the indicators which define feedforward, most of the feedback is generic and this means that the tutors give, in general terms, guidance, recommendations and/or instructions for the improvement of the future entries of the student.

Secondly, tutors usually focus on comments towards self-observation, which means that they give guidance, recommendations

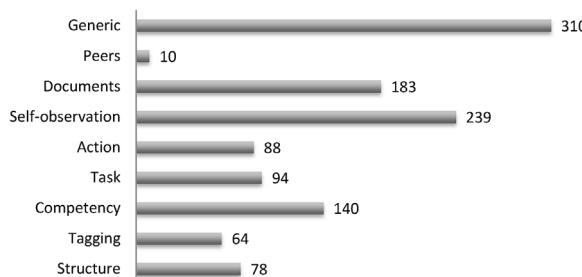


Chart 4. Distribution of feedback focused on feedforward – by indicators.

and/or instructions thereby raising student self-observation about their own action or work for future entries. The distribution of feedforward by indicators is illustrated in [Chart 4](#).

The role of the teacher in the process of self-regulation is very important, particularly in contexts of written work when feedback is understood as a facilitator for bidirectional communication between the teacher and the student, and which promotes the internal regulation of the student or the self-regulation of learning as an interpersonal process. The extent to which the student reaches self-regulatory competence can be spoken about in a scenario of formative assessment and authentic learning. This is the reason why the semantic dimension of the message of feedback is of greater importance.

Analysing the cases, in almost all the scenarios, feedforward is generic, except in the case of the Practicum which focuses on self-observation and in the case of the Master where it focuses on documentation. This fits in with the nature of the learning results expected in each one of these subjects.

Contrasting all this data with the perception of the students expressed through the questionnaire, the data demonstrates that the scenarios where feedforward was most worked on is not necessarily associated with the highest level of satisfaction of the students. In the case of the URV, a scenario in which feedforward has been most worked on; it just obtains 6.5 points out of 10 of student satisfaction. It is evident that a great variety of factors wind up including the satisfaction of the students and in no case a causal relationship can be established, however, it is a piece of data that can generate future paths of inquiry.

4.5. The process of feedback according to the perceptions of tutors and students

The level of satisfaction with the experience, both in the perception of the students as well as the tutors was analysed. The data reveals that the students have been quite critical with the feedback received. In this respect, the general satisfaction of an average of 6.5 points out of 10 has to be remarked. There are differences between the levels reported by each one of the cases. It should be emphasised that there are not many significant differences in terms of the university but rather with the level of studies where the experience was implemented. While in the cases where they have been implemented in the undergraduate studies and show up an average of between 6.0 out of 10 (UB undergraduate) and 6.9 out of 10 (UAB undergraduate), the highest significant averages were found in the Master's studies (an average of 8.2 points out of 10) and Practicum (an average of 8.1 points out of 10), although it is necessary to point out that the last two subjects count with a smaller number of students in the class group. A look at the level of satisfaction of the tutors reveals that this was higher than the students (8 points out of 10) and the data demonstrates that the case with the maximum level of satisfaction is that of the Practicum (10 out of 10), followed by the level of the undergraduate of the UB (9 out of 10) and of the Degree of the URV (8 out of 10). In the case of the Practicum, the relationship between the satisfaction of the students and the tutors is positive, however, in almost all cases, the assessment of the tutors is usually more positive than that of the students, except in the case of the Master where the students evaluate their experience more positively.

The students perceive that the feedback provided by the tutors helps them in the future, having the potential to be transformed into a feedforward activity. The average in this sense is quite low in the different items of this category. Students consider that feedback helps them to carry out their future tasks better (an average of 3.4 points out of 5); it helps them to participate more actively in the process of self-assessment (an average of 3.3 points out of 5); it motivates them to dedicate more time and effort to the tasks to be developed in the future (an average of 3.2 points out of 5); and finally it helps them to improve their mark (an average of 3.2 out of 5) and to accomplish their competencies (3.1 out of 5).

The data from tutors' questionnaires reveals that their perception regarding the feedback process falls within the average. However, tutors perceive that their feedback mainly focuses on tasks (3.7 points out of 5), competencies (3.7 out of 5), on personal comments directed to students (3.4 points out of 5), in the metacognitive process (3.1 out of 5), formal aspects (2.7) and the process of student learning (2.7), but much less on the self-regulated process (2 out of 5).

The students have found that the experience has been quite useful to develop the proposed competencies to progress in the subject (with an average of 3.5 out of 5), and it has been useful to learn concepts (3.3 out of 5) and finally, it has been a greater motivator (an average of 3.3 out of 5).

As shown from the data, students consider that feedback contributes to the development of their competencies (an average of 3.1 out of 5) and helped them to improve their marks (an average of 3.2 out of 5).

A weak point of the feedback provided by the perception of tutors, refers to the references to peer-feedback which is the implication of the colleagues in the process. In this case, just as is observed in the previous data, the least amount of feedback relates to their colleagues. This piece of data is confirmed by the tutors when they mark this indicator with an average mark of 1.1 out of 5 in the self-administered questionnaire.

5. Discussion

The present study has investigated the characteristics of feedback and the perception of the students and tutors with respect to it. Despite the fact that both tutors and students acknowledge the value of feedback for the self-assessment and self-regulation of student learning, dissonance in students' and tutors' perception exists, coinciding with the work of [Poulous and Mahony \(2008\)](#) and [Ion, Barrera, and Tomàs \(2016\)](#). On the other hand, the contribution of feedback to learning is the principal characteristic that the literature claims about it ([Narciss, 2008](#)) and warns of the risk of idyllically considering that the simple fact of promoting feedback is going to improve learning. Our analysis reveals that students perceive that feedback does really help in a positive way to improve their learning.

Most of the feedback provided has been focused on feedforward, making reference to the future learning of the student and there

have been comments that, in the majority of cases, it has been related to the tasks that the students had to carry out, thus supporting the findings of [Hattie and Timperley \(2007\)](#) and [Zamora, Su & rez, and Ardura \(2016\)](#). However, there were some occasions when reference was also made to the development and the acquisition of competencies that were worked on in each case and that were previously provided by the teacher. This process of feedforward has also had a very important role in the motivation of the students endorsing the idea of [Dowden, Pittaway, Yost, and McCarthy \(2013\)](#) about the emotional impact of positive response. Nevertheless, if the satisfaction of the students is considered, the feedback which provides the greatest satisfaction to them is that which is focused on their strengths and therefore, reinforces positively their work ([Kleijn et al., 2013](#)). However, some of the scenarios where feedback has been most frequent and extensive have not been those that have obtained better evaluation or results, therefore motivating us to keep analysing new tools for the analysis of the processes related to the feedforward.

A weak point of feedback provided by the lecturers' own perception applies to the references to peer-feedback, the implication of the colleagues in the process, about how the various experiences show that through involving the colleagues in this process, it could be more effective than that of the teacher. Authors like [Nicol, Thomson, and Breslin \(2014\)](#), assure that the feedback the students carry out makes them perceive this assessment positively, and for this to happen, the students should understand the sense of feedback and identify with greater clarity the particular aspects of their work that need attention ([Sadler, 2010](#)). This is, undoubtedly, a practice that requires us to focus more on for future analysis, an aspect in which our research team is working currently, in order to develop new understandings on peer and self feedback by lecturers and students.

Finally some of the limitations of our work from which we identify future research lines are pointed out. On the one hand, as we previously explained in the method section, the results we have obtained only make sense within the framework of the subjects analysed. Therefore, it would be interesting to carry out similar research with a larger sample made up of different types of courses. On the other hand, taking into account the feedback conceptualisation proposed by [Narciss \(2008\)](#), [Narciss et al. \(2004\)](#) and [Narciss and Huth \(2006\)](#), other dimensions which define feedback processes could be analysed, for example, the structural dimension (i.e. the characteristics of feedback within a specific context) or the motivational function of feedback ([Núñez-Peña, Bonoa, & Su & rez-Pellicionia, 2015](#)).

The results of the research also suggest the necessity of transferring the protagonism from the tutors to the students in search of a more dialogic feedback, in which students are the judges of their own learning process ([Boud & Molloy, 2013](#)) and changing the attention of the lecturers (as the only ones that offer feedback) towards the students. This has led us to propose future projects of educational innovation and research about it, in which the students have a more active role in the processes of feedback and this being self-regulated and evidently implicating the involvement of the student. The students are the ones who know and apply the criteria to their work, and then use this information to improve it on future occasions. thus making them reflect about the quality of it.

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