How students use rubrics in final year projects in teacher education

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Abstract

This paper analyses the students' use rubrics for the assessment of final year projects (FYP) in teacher education and the lecturers' perceptions, using a case study design with 12 participants. In-depth interviews and a focus group were conducted. The results show that the rubrics were public but most of the students were not aware of them. Most of the tutors did not work on them, so the students had not taken advantage of them as possible learning involved. The lecturers believe that students used the rubrics to check the quality. Therefore, the lecturers propose to use them in a formative way. It is concluded that regular use of the rubrics could be used formatively. Intervention methods are proposed to use the rubrics as learning tools throughout the development of the FYP.
Keywords: Final year project; Assessment; Teacher education.

Resumo

Como os alunos utilizam as escalas descritivas nos projetos do último ano na formação de professores

Este documento analisa como os estudantes utilizam escalas descritivas para a avaliação de trabalho de conclusão de curso (TCC) na formação de professores e as perceções dos professores. É realizado um estudo de caso com 12 participantes através de entrevistas em profundidade e uma discussão em grupo de foco. Os resultados mostram que as escalas descritivas eram públicas, mas a maioria dos alunos não tinha conhecimento delas e a maioria dos tutores não trabalhava com elas. Os professores acreditam que os alunos usaram esses instrumentos para verificar a qualidade do trabalho. Conclui-se que estes instrumentos poderiam ser utilizados de maneira mais formativa e sugere-se como utilizar as escalas descritivas como ferramentas de aprendizagem ao longo do desenvolvimento do TCC.
Palavras-chave: Trabalho de conclusão de curso; Avaliação; Formação de professores.

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Resumen

Cómo utilizan los estudiantes las escalas descriptivas en los trabajos fin de grado en la formación inicial del profesorado

En este trabajo se analiza cómo los estudiantes usan las escalas descriptivas para la evaluación de los trabajos fin de grado (TFG) en formación del profesorado y las percepciones de los profesores. Se lleva a cabo un estudio de caso con 12 participantes, realizando entrevistas en profundidad y un grupo de discusión. Los resultados muestran que las escalas descriptivas eran públicas pero la mayoría de los estudiantes no las conocían y la mayoría de los tutores no trabajaban con ellas. Los profesores creen que los alumnos utilizaban estos instrumentos para comprobar la calidad del trabajo. Se concluye que estos instrumentos podrían utilizarse de una manera más formativa y se sugiere cómo utilizar las escalas descriptivas como herramientas de aprendizaje a lo largo del desarrollo del TFG.
Palabras clave: Trabajo fin de grado; Evaluación; Formación del profesorado.

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Introduction

Final year projects: definition and assessment

The final year project (FYP) was born out of the creation of the "Bologna Plan" in 1999. This plan approved the creation of a uniform university system in Europe, based on the development of general and specific competencies within university degrees. According to Royal Decree 1393/2007, higher education studies are concluded once a FYP has been completed. FYPs contribute between 6 and 30 ECTS credits, depending on the university (Arreman & Erixon, 2017; Vicario-Molina, Martín, Gómez, & González, 2020). Royal Decree 1393/2007 does not specify the criteria for the preparation and assessment of FYPs; each university must draw up a personalised guide detailing these criteria. Mateo, Escofet, Martínez, Ventura and Vlachopoulos (2012) and Vicario-Molina et al. (2020) define the FYP as a work carried out by undergraduate students to complete their studies, where they must show the competencies acquired throughout their degree. Specifically, Hashim and Hashim (2010) explain that the FYP promotes: (1) problem solving within a research field; (2) learning how to design, develop and present conclusive results of a research project. The agents involved in the process of preparing and assessing the FYP include: the student, a lecturer as the student's tutor and two or three lecturers who make up the assessment committee, depending on each university. Álvarez and Pascual (2012) state that the student, the tutor and the assessment committee are the agents that form part of the production and assessment of this work; adding that all of them should be involved to ensure that the assessment is as close as possible to the work

carried out. As for Vicario-Molina et al. (2020), she indicates that the assessment committee is responsible for assessing the development and presentation of the FYP and, in turn, for assessing the student's training in the knowledge and skills acquired in the degree.

Medina et al. (2020) explain that assessment by competencies in the FYP is currently very important; but this does not mean that all the competencies acquired must be shown in the project, but rather its contribution to their achievement. Within the assessment, the instruments used are particularly relevant. López-Pastor and Pérez-Pueyo (2017) define assessment instruments as: "those documents or resources that are linked to an assessment activity, to set out in them the requirements and aspects to be assessed, clearly indicating the levels of achievement of each one" (p. 80). In this respect, Hamodi, López Pastor, and López Pastor (2015) and Quintana Jederman, and Gil Mateos (2015) show that assessment instruments must be coherent and contextualised according to what is to be assessed and, in addition, they must be written clearly, so that everyone who uses them understands them; furthermore, their use must be formative, transparent and clear.

Many authors consider rubrics as the most widely used assessment instruments. Panadero and Alonso-Tapia (2017) and Reyes-Garcia (2013) agree that rubrics facilitate the systematisation and collection of evidence of students' work and add that their formative use increases student motivation. The studies by Estapé-Dubreuil, Ayza, Plana, Aróztegui and Parera (2012), Fernández-March (2011), Marín Diaz, Cabero Almenara and Barroso Osuna (2012) state that rubrics are among the instruments best suited to competence-based assessment, as they serve to clarify the objectives of the project and the formative scope of learning during their development. In this regard, Panadero and Jonsson (2013) explain that, in order to make formative use of rubrics it is important to work with the student on each assessment criterion, provide guidance on the student's learning process, and analyse their evolution according to the different criteria of the instrument. Specifically, studies such as those by Urbieta, Garayalde and Losada (2011) and Resines Gordaliza, and Valle Flórez (2013) report experiences on the design and use of rubrics in pre-service teacher education (PTE), agreeing that work with this instrument makes it possible to: (1) deepen reflection and understanding of learning; (2) self-regulate knowledge; (3) increase participation in the task set; (4) improve the lecturer's guidance of students in the task; and (5) increase student motivation in the task.

Student participation in the assessment of FYP

Wiliam (2011) develops a description of how the term formative assessment and evaluation for learning has evolved to improve the quality of learning; he details that at the beginning of the 21st century the issue of formative assessment began to be discussed by including the students and the teacher in the assessment process. Sánchez et al. (2014) and Quintana Jederman, and Gil Mateos (2015) argue that within the FYP it is important to work with a transparent, continuous, and formative assessment system. Along the same lines, Panadero and Jonsson (2013) defend the importance of offering transparency in the assessment of the FYP because it allows a more precise evaluation of the levels of competence achievement set out in the project. Panadero, Romero and Strijbos (2013) offer positive results in the practice of formative assessment using rubrics.

Student participation in assessment can take different forms: (1) student self-assessments; (2) peer assessment; and (3) co-assessment or shared assessment, where the student and the lecturer assess each other (Bretones, 2008; Gil & Padilla, 2009; López-Pastor, 2009; Pérez Pueyo et al., 2008). Figure 1 shows several reasons why it would be positive to involve students in assessment processes:

Figure 1 – Reasons to involve the student in the assessment.
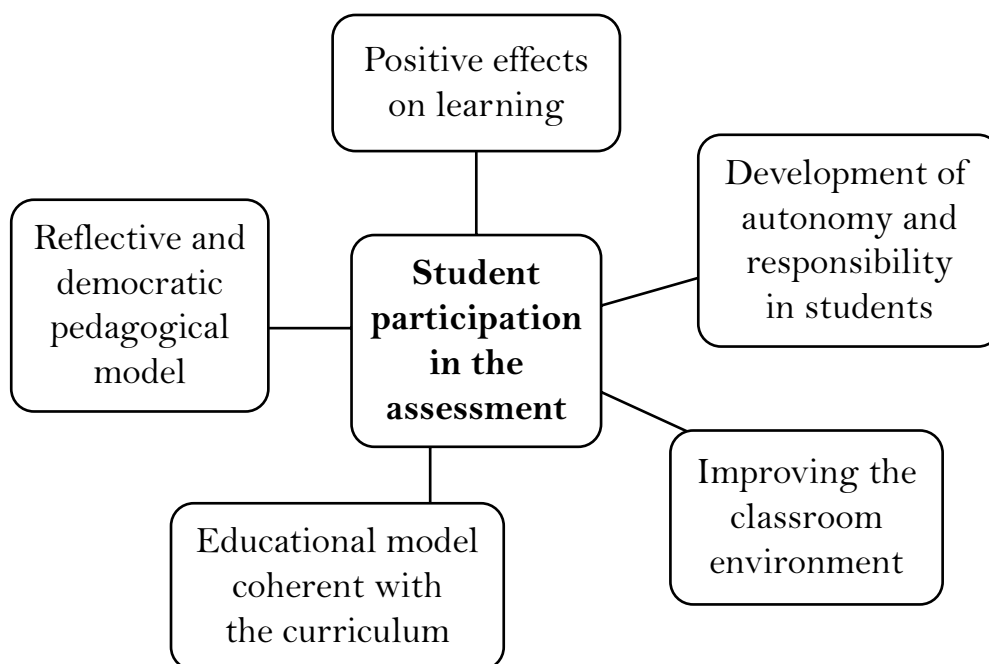
Source: authors' own based on Bretones (2008), Gil and Padilla (2009), López-Pastor (2009) and Pérez Pueyo et al. (2008).

García and Ferrer (2016) defend the importance of the student knowing what is going to be assessed in the FYP because it makes the assessment of the work authentic and allows the student to carry out the work effectively. Gil and Padilla (2009) add that at least two conditions must be met for the student to be part of the assessment and for it to be effective: (1) the instruments and techniques used have explicit criteria that are accepted by the students, and (2) the students know how to apply these criteria to their specific task.

The formative and shared assessment (F&SA) system consists of two concepts: (1) formative assessment, and (2) shared assessment. López-Pastor (2009) define formative assessment as the assessment process that improves the teaching-learning processes of students; and, moreover, they refer to shared assessment as those dialogical processes that consider the participation of students in the assessment. The studies of Pinya Medina et al. (2020), Nicol and Macfarlane (2006), Panadero, Romero and Strijbos (2013) and Rodríguez-Gómez, Quesada-Serra & Ibarra (2016) also give fundamental significance to feedback.

Panadero and Alonso-Tapia (2017), Panadero, Alonso-Tapia and Huertas (2012) and Panadero, Alonso-Tapia and Reche (2013) offer solutions where the student is part of the assessment using rubrics. Furthermore, they show that the formative use of rubrics for self-assessment and feedback improves students' task development if they are used throughout the learning process. Also, they minimise differences in student expectations regarding the learning outcome.

There are many benefits of student participation in assessment, and specifically using rubrics. Despite this, no studies have been found on the use students make of assessment instruments during the development of their FYP and especially in PTE. Further research on the subject is needed to highlight student participation in the assessment process. In order to respond to the scant research, the objectives of this paper are:

(1) To analyse how students in PTE access FYP assessment instruments.

(2) To analyse how these students use the FYP assessment instruments.

Method
Context

The paper focuses on a spanish faculty of education with three degrees: (1) early childhood education teaching; (2) the primary education teaching degree

with a mention in music, physical education or environment; and (3) a joint study programme in early childhood and primary education teaching. Approximately 650 students were involved.

In 2015, the professors of this faculty developed a FYP assessment process that was as homogeneous as possible, as there was no clear common procedure. To this end, they created three assessment instruments and established uniform assessment criteria:

(1) The tutor's report: completed by the tutor and assessing aspects related to the FYP development process and the student's learning and evolution. It is not marked.

(2) A rubric for the assessment of the written document: completed by the members of the assessment committee, on aspects related to the final document. It represents 80% of the final mark.

(3) A rubric for the assessment of the oral exposition: completed by the members of the assessment committee, on aspects related to the presentation and oral defence of the work. It represents 20% of the final mark.

The three instruments have a summative and final character within the FYP assessment process; although they could also be used for formative purposes if the students and/or lecturers wanted to give them that orientation. Likewise, the two rubrics are analytical in nature, because they detail the assessment criteria at each level of achievement (Martínez-Rojas, 2008); with four levels: A-B-C-D. This analytical organisation does not usually lead to confusion in the treatment of each criterion.

Sample

The sample consisted of 12 subjects: four lecturers from the faculty of education and eight students in the final year of the joint study programme for the teaching degree. The criterion for selecting this sample of lecturers was that they took part in the process of creating the assessment instruments (see Table 1). In the case of the students, the criterion was that they had already completed a FYP in the previous degree, since in the 4th year they must complete a FYP for the primary education degree and, in the 5th year, a FYP for the early childhood education degree. Therefore, this group had a global vision of the process of development and assessment of the project. In addition, all the subjects were aware of the assessment instruments and had well-founded opinions about them.

Due to the COVID-19 pandemic situation, this sample of lecturers and students was contacted by e-mail. The interviews were conducted by videoconference using the "Cisco Webex" programme. Table 1 shows the codes of each interviewee and their description.

Table 1 – Codes and description of the subjects participating in the study.

Code	Sample	Description
L1	Faculty lecturer	
L2	Faculty lecturer	Coordinators of the project for the creation of the FYP assessment instrument in 2015.
L3	Faculty lecturer	
L4	Faculty lecturer	Lecturer who participated in the process of creating the FYP assessment instrument in 2015, and who maintains a different opinion to that of most of the lecturers.
S1	Student 1	22 years old. High academic record. In agreement with the assessment of the FYP.
S2	Student 2	28 years old. Low academic record. Dissatisfied with the assessment of the FYP.
S3	Student 3	22 years old. High academic record. In agreement with the evaluation of the FYP.
S4	Student 4	22 years old. Intermediate academic record. In agreement with the assessment of the FYP.
S5	Student 5	23 years old. Low academic record. Dissatisfied with the assessment of the FYP.
S6	Student 6	23 years old. Intermediate academic record. Not very satisfied with the assessment of the FYP.
S7	Student 7	22 years old. High academic record. Satisfied with the assessment of the FYP.
S8	Student 8	22 years old. High academic record. In agreement with the assessment of the FYP.

Source: authors' own.

Instruments

The specific techniques used to obtain data were in-depth interviews and a focus group. Firstly, the interviews were conducted with the lecturers; then, to contrast and complement the results from the lecturers, the focus group was conducted with the students. These two techniques are complementary for triangulating data

in qualitative research and, moreover, are the most widely used in this branch of research (Milena, Dainora, & Alin, 2008; Palacios, 2014).

Throughout the paper, descriptive scales will be referred to as "rubrics", as this is the term most used in scientific papers and interviews. Likewise, the term "instruments" will also be used to refer to the tutor's report and the two rubrics. Table 2 shows a sample of the interview and focus group questions.

Table 2 – Sample questions from the data collection techniques directly related to the objectives of the study.

Technique	Questions
In-depth interviews	Do students have access to the three assessment instruments, and does anyone inform them that the instruments are available to them and how useful they are?
	What is your perception of the students' interpretation of the rubric?
	Do you think they take these instruments into account in order to prepare their FYP well?
	What is your perception, as a tutor, of what these instruments can help them to learn during the completion of their project?
	Were you aware of the instruments before doing the FYP?
Focus group	What is your impression of the instruments? What do you think about the three instruments? If you would like to, highlight something about each of them in general.
	Are you used to working with this kind of instruments during your degree?

Source: authors' own.

Process

This study is framed within an analytical qualitative research design: a case study of a concrete and close reality, to analyse it and generate new knowledge and proposals (Stake 1998; Simons, 2011). Specifically, it analysed the use of FYP assessment instruments by students in a faculty of education.

Four in-depth interviews and one focus group were conducted. The interviews were conducted face-to-face and on-line (through the "Cisco Webex" application, due to the state of alarm). The focus group was conducted through the same application due to the confinement included in the COVID-19 pandemic restrictions. The interviews were transcribed verbatim and validated and accepted by each interviewee.

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Analysis

The data analysis was carried out through a process of categorisation; and a deductive analysis of the information; Zhang and Wildemuth (2009) clarify that deductive analysis is developed starting from the theoretical aspects of the research, without previous data. Once the category tree was formed, a verbatim transcription was made of each interview and focus group. After reading them, all the information obtained was analysed and categorised. Finally, the data were processed using the computer programme "Atlas.ti 8", fragmenting the discourse into units of information and coding them. Table 3 shows the system of categories used, which tries to respond to objectives (1) and (2), respectively.

Table 3 - System of categories and subcategories.

CATEGORIES
1-Student access to the FYP assessment instruments: lecturers' and students' perspectives.
2-Use of the FYP assessment instruments by students: lecturers' and students' perspectives.

Source: author/s' own.

To ensure the scientific rigour of the study, the work was based on Guba's criteria (1989):

• Credibility: using three techniques: (1) the qualitative data were transcribed and analysed as they were collected; (2) a second round of interviews was conducted to validate specific data that were not clear in the first round; (3) the information from the in-depth interviews was triangulated with that from the focus group. The results are based on the interpretation of the interviews and the focus group based on verbatim quotes from the interviewees.

• Transferability: the procedure followed, the context studied, and the sample selected are described.

• Dependence: the data collection techniques and subjects have been triangulated.

• Confirmability: triangulation of techniques and subjects was carried out, as well as a rigorous analysis of the data, connecting them with each other and including textual quotations from the participants. The intersubjectivity of the participants was worked on and the researchers' opinion bias was avoided.

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Results and discussion

In this section the results and discussion are presented together as this is a qualitative study. The content is organised according to the category system presented in Table 3.

1 - Students' access to the FYP assessment rubrics: lecturers' and students' perspectives

Several lecturers explained that the assessment instruments are public and should be known by the students from the beginning of the FYP subject. In this regard, the results seem to indicate that the instruments are transparently shown to students because they are available via the virtual campus from the very beginning. Despite the lecturers' version, not all the students corroborated this: most of the students interviewed claimed not to know the assessment instruments (their tutors did not show them to them or work with them). Only two students confirmed that they were notified by post that the documents were available, and only one of them said, doubtfully, that he knew about the instruments because his tutor showed them to him at the end of the FYP, but without the option of using them during the process of writing the project:

> Yes, they have the instruments from the beginning, from the moment they are on the virtual *campus*. The coordinators upload all the information that the students will need to present and defend their project. Then the tutor is the one who can inform or not; it is the tutor who decides whether to work with the instruments. But the students know about the existence of the instruments from the very first moment (L1).

> Well, first the notice arrives via the virtual campus, which is where all the FYP documents are [...]. Students should go to the instrument, but anything is possible [...] (L2).

> In fact, I didn't even know that there was a document completed by the tutor. That tells you everything. I knew that, obviously, the FYP committee that assesses you had some kind of assessment instrument. But I didn't know that the tutor made a report like that, I had no idea (S2).

> Before the first FYP I had not seen them (S4).

> I didn't know about them in the previous FYP (S6).

> Well, I totally agree with S2 and, moreover, in my case, I had not seen these instruments before. Now I do think that they can help you a lot if you see them before you are going to be graded (S3).

> I didn't see them in either of the two FYPs. I've just seen them now as soon as you sent them to us. It's true that last year when I handed in the documents to my tutor (at the end of the FYP) he showed me his report in 30 seconds: 'This is, more or less, what I have assessed, so and so, come on, let's hand it in'. And that was the end of the conversation (S5).

> I am not sure if I know them because my tutor showed them to me when I handed in my FYP, or if she had already shown them to me before I did my project. I don't remember. But I am sure I have seen them. However, what I have never seen is the instruments filled in by the lecturers with the assessment given by the examining board; I have never seen that (S7).

> They did send me the instruments (S1).

Different studies affirm that transparency in displaying assessment criteria and rubrics is key for students to know what is expected of their work and reduce their anxiety (Panadero & Jonsson, 2013, Panadero & Jonsson 2020; Sharef, Hamdan & Madzin, 2014). These authors add that transparency also facilitates the exchange of communication of expectations to learners through feedback between the lecturer and the learner, which promotes learner self-regulation and improves learner performance. Transparency in the assessment process allows for a formative use in the teaching-learning process of students, as they know what they are going to be assessed on; it also allows students and tutors to work formatively with the instruments throughout the FYP process (Fernández-March, 2011; García & Ferrer, 2016). Furthermore, Hernández-Leo et al. (2013) argue that this prior knowledge of the instruments allows them to be used to carry out self-assessments of the drafts they are preparing. In this same vein, several authors consider that transparency is fundamental to be able to carry out FYP processes that allow for improving student learning with the task (López-Pastor, 2009; López-Pastor & Pérez-Pueyo, 2017; Pérez-Pueyo, et al., 2008); especially focusing on PTE, where the assessment instruments have to follow an approach that is coherent with the assessment system proposed (Ruiz, 2013; Villardón, 2006).

One lecturer stated that it would be useful for the tutor to work on the rubrics with the students, as well as for the students themselves to have access to them, but that this is optional. One lecturer specified that whether tutors work on the instruments may depend on whether or not they agree with the use of rubrics. The lecturers agreed that students can orient themselves and have an idea of how to carry out the FYP thanks to knowing the assessment instruments from the very beginning. They said that this instrument can have a positive influence on them, because they know what aspects they will be assessed on. Even so, one of the interviewees did not ensure that students considered the use of the rubrics and reflected on each section of the work:

> As a lecturer, I think that providing the instruments from the beginning has a positive influence [...]. Perhaps the best thing would be, in addition to

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publishing the rubric, to ask the tutors to work on it initially with the students... [...] I think it is one more tool to consider what a good dissertation can be before going into the specific topic, which is what everyone likes more or less, but with quality criteria. I think it is good to give guidance and to see what is expected and what is not expected from a FYP (L2).

I always tell them that they have the rubrics, but I don't know what the other lecturers do anymore. I think they will tell them, although I think that if they don't agree with the rubric..., you won't mention it, you will completely ignore it. I always tell them that. In fact, I say it in this sense: 'Keep in mind that, despite everything I'm telling you that is aimed at us doing a good project, being passionate about it and liking it, and ending up happy that we did this, that's one thing, and then keep in mind that they're going to give you a grade based on this. [...] It always helps to know what they are going to ask you for (L3).

Well, I think it can give them a lot of positive feedback, especially to orientate themselves as to what they are going to be graded on. [...] It is an important aspect for them to know the importance of a dissertation, which is the culmination of a series of years that you have been studying. In the FYP, what they want to see is that you have obtained a series of competencies and you have to express them in this work. [...] So, the fact of reflecting on it and [...] you also see it in the rubric. It makes you reflect on each section of your project, and, in that sense, it would be formative. And I think that this aspect is not fully exploited (L1).

The problem can occur when, despite showing the instruments from the beginning, the tutor does not work with the students, nor do the students themselves access them or take them into consideration during the learning process and preparation of the FYP. Along the same lines, Panadero, Alonso Tapia and Huertas (2012) indicate that the rubrics should not only be given and shown, but that the improvement of learning depends on other factors such as continuous work with them. Based on this idea, the data seem to indicate two weaknesses in the process: (1) a communication problem, because despite the fact that the degree coordinators send an e-mail-notice about the publication of the rubrics, the students claim not to know or use them, and (2) it seems that a large part of the lecturers do not promote their use as useful references from the beginning and throughout the process of preparing the FYP. In this respect, it is necessary to consider the possibility of making the assessment process formative with the instruments between the tutor and the student. Different authors show the benefits of the lecturer working with the rubrics with their students with a formative orientation, such as the improvement of learning, performance and self-regulation of the student and understanding of the task (Panadero & Jonsson, 2013; Meusen-Beekman, Joosten-ten Brinke, & Boshuizen, 2016). The study by Medina et al. (2020) shows an experiment in

which group tutorials were carried out to follow-up the FYP, in which they worked with the assessment rubrics to better understand the feedback and thus improve the work. The papers of Fraile, Pardo and Panadero (2017) and Pinya Medina, Iglesia Mayol, Gelabert, S, and Rosselló Ramon (2020) agree that the main characteristic of the rubrics is that the feedback they offer allows the student to improve in the learning process; that is, although the student has the rubric from the beginning, if they do not work with it during the process of preparing the work, they will not take advantage of its formative nature. This idea coincides with the results of the study by Hernández-Leo et al. (2014), who consider that the conscious use of rubrics as formative instruments for monitoring and assessing FYPs falls within what they have called "good practices" in these studies. In this sense, the data obtained seem to indicate that the rubrics are tools that offer valuable information to students on how to carry out the work, but only if they are shown and worked with from the first day. As Panadero and Jonsson (2013) argue, transparency and student involvement in assessment can make the learning process much more rewarding.

2 - How students in a faculty of education use the FYP assessment rubrics: lecturer and student perspectives

The lecturers interviewed agreed that students use the instruments to check the quality of their project in relation to the mark, but not to obtain more or less learning from the beginning of the process. They consider that students interpret the instruments in a quantitative way and thus adjust their work to what they are going to be assessed on (rubric criteria). Corroborating this idea, the students indicate that they only use the instruments as a review at the end of the FYP preparation process, as a form of self-assessment; they access the instrument freely before formally submitting it, with a view to checking their possible grade. One of the students interviewed corroborated that the FYP assessment rubrics justify the marking of the work, because they are drawn up based on specific marking criteria. Two other students concluded that the rubrics are instruments that guide them, but that they may be dispensable. One of the lecturers thought that it would be good to analyse the content of the rubrics to learn more from the work, but says that they do not get to work with this formative approach:

> Yes, they focus on: 'I'm missing that, I'm missing the APA Style, such and such... '; so, they don't see it as a learning tool. It is true that they don't get to work on it in the sense of: 'It will help me learn'; but more thinking about the grade. [...]. There are some who are smart and clever and then they look

at what they are going to be assessed for, so they tend to do work that fits in with this. [...] Most of the time they take it into account to get a good mark and, moreover, most of them tend to look at it at the end. They don't think about the help that this instrument can offer them in their FYP, they don't think that it can help them to know what the work should have, what they have to look at as learning... It is used more for what is going to allow me to pass [...]. The fact of reflecting on it and, what that forces you to do...; and that, in addition, you see it in the rubric. It makes you reflect on each section of your project, and, in that sense, it would be formative. And I think that this facet is not fully exploited. [...] They don't take it into account as a learning tool (L1).

If the students are smart, there are some who are not going to look at the rubric and its criteria in life; then they look at what they are going to be assessed on, and then they tend to do a FYP that fits what they are asked to do (L4).

They use it in the same way as the lecturer. They convert letters into numbers, so the 'A' is the total grade; it's as simple as that, it's ratios that are converted into numbers (L3).

I think you then see that the grades are justified. You see in the table; I have this mark because I am within this range or this level. Not like some lecturers, who give you a mark and you don't even know where they got it from (S1).

Yes. It is true that, perhaps, the rubrics are elements that help you to do your FYP and that can help you a lot. But they are not essential (S2).

I think that, more than helping you, they guide you (S8).

The data indicate that students tend to use rubrics only at the end of the process and with a clear focus on grading. In this respect, Panadero and Alonso-Tapia (2013) find that most of the works published on rubrics agree that they have a scale for students to self-grade their project, which probably leads them to focus their attention on the grade. This orientation could lead to an incomplete (or partial) use of the instrument, as it misses out on some of its formative uses, since the rubric only becomes formative if the student works with it throughout the process (Fraile et al., 2017). Torrance (2012) states that the use of rubrics has pros and cons; on the one hand, the fact of using defined and transparent criteria with the student can lead them to divert their attention to the fulfilment of these criteria, rather than to learning the task. In this sense, working with rubrics that are defined and known to the students can generate dependence and limit creativity and the development of divergent thinking; but, on the other hand, if students are deprived of the transparency and use of the instrument, we would be taking away responsibility and autonomy in their work.

Given that students have the instruments and criteria at their disposal from the beginning of the course, ideally the rubrics should be used throughout the entire process of completing the project, as a system of self-regulation of their learning (Author, 2009; Córdoba Jiménez, 2018); which seems to be a key element in the improvement and control of learning, since students are aware of the process (Santos-Guerra, 2009; Author & Pérez-Pueyo, 2017). To carry out self-regulation processes during the preparation of the FYP, students should use these instruments from the beginning, as a feedforward, as well as regularly throughout the process, with dynamics of self-assessment and shared assessment with their tutor, to improve their self-efficacy, their learning and the final quality of the FYP. This initial idea coincides with Hattie and Timperley's (2007) approach to feedforward, understood as an active process in which the student is directly involved in improving the learning task performed. On the processes of self-assessment and shared assessment, some ideas can be found in Bretones (2008), Fraile et al. (2017), López-Pastor and Pérez-Pueyo (2017) and Panadero, Alonso-Tapia and Reche (2013).

Conclusions

The results seem to indicate that the assessment instruments are used, to a greater extent, to check the possible grade that the FYP may obtain and not to acquire more or less learning. Most of the students did not seem to have used the instruments during the completion of their FYP; even so, they considered that they could serve as a guide during this process.

The data show that the assessment instruments are public and accessible to students from the beginning of the academic year, before starting to prepare the FYP; however, they do not seem to be widely used throughout the process, either by students or by lecturers. This indicates two problems in the process: (1) failure in communication between lecturers and students, as students do not seem to know or use the rubrics; (2) lack of use of the rubrics by lecturer-tutors during the development of the FYP. The data show ideas about taking advantage of the transparency of the rubrics to work with them with a formative orientation from the beginning and during the process; however, most lecturers do not do so.

The results found may be very useful for lecturers in the faculties of education involved in tutoring students during the preparation of the FYP, as well as for

management teams and lecturers involved in coordinating the preparation and assessment of the FYP. Some of the lessons learned are: (a) the advantages of using rubrics for the assessment of the FYP, despite also having some disadvantages; (b) the advisability of making the rubrics public and transparent from the beginning of the course; (c) the importance of promoting the formative use of these rubrics as an element of self-regulation of learning throughout the entire process of preparing the FYP.

These results may be very useful for reformulating the use and treatment of rubrics as FYP assessment instruments in faculties of education. We consider that this study may be of interest to all faculties of education that use committees or tribunals for the assessment of FYPs.

A possible limitation of the study is the small sample of subjects interviewed. It would be interesting to carry out more interviews with lecturers and students who have carried out a FYP in this and other faculties. Based on the results obtained, it may be interesting to develop intervention models that use the rubrics to promote formative assessment processes and student participation throughout the FYP, not only at the end of it, as well as to investigate their effects on self-regulation and student learning.

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