Discuss to learn: A student-focused learning strategy

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Structured abstract

Purpose: Traditional teaching strategies are making way for a more collaborative learning style, where students play active roles in their learning process. This work focuses on the discussant role activity in the market research subject in a business administration bachelor's degree as a way of empowering students' role. The discussant activity fosters critical thinking and debate between classmates, while also encouraging communication and relational skills.

Methodology: Drawing on expectation-disconfirmation theory, this study analysed students' expectations and perceptions before and after the discussant activity. Data were collected through two surveys carried out in class at the beginning and at the end of the course.

Findings: The empirical findings show that interactions in the classroom during the activity contribute to students' final evaluation of the activity and positively affect cross-curricular and subjective learning performance.

Originality: Activities that recreate real-life experiences help students in the acquisition of certain key competencies related to their future inclusion in the labour market.

Keywords: Perceived interactivity, Evaluation, Cross-curricular learning performance, Subjective learning performance, Expectation-disconfirmation theory, Higher education, Teacher training, Discussant, Student competencies, Active learning, Collaborative learning

Paper type: Research paper

Introduction

Over the years, researchers have studied different learning strategies with the purpose of enhancing learning performance. This has been described as students' approaches to learning (Biggs, 1978; Entwistle and Ramsden, 1983; Marton and Säljö, 1976; Trigwell *et al.,* 1994; Trigwell *et al.,* 1999). These learning approaches have been categorized as teacher-focused and student-focused strategies (Trigwell *et al.,* 1994). Based on this idea, it can be seen that in the teaching-learning process there are several members playing a role in the learning performance. A teacher's role can be merely informative by transferring concepts at class, but they can also nudge students to actively participate in the learning process, fostering some degree of teacher-students interaction. At the same time, students can also have several roles, such as the traditional passive learning, a more active learning based on self-learning or even in a collaborative learning. This active approach aims to enable students to develop their own conceptions, to acquire the discipline concepts and to change their conceptions (Trigwell *et al.,* 1999). Hence, the student-focused strategy can encourage students to actively interact and collaborate in the learning process resulting in a positive performance. Several authors have highlighted the importance of student-focused learning strategies as a way of promoting active student engagement in order to improve academic success and learning outcomes (Jovanović *et*

al., 2017; Nkhoma *et al.,* 2014) or to contribute to the internal value-based culture of learning, achieving a deeper understanding (Sagy *et al.,* 2018).

The use of methodologies that boost collaborative learning seems useful in generating a positive classroom climate (Blasco-Arcas *et al*., 2013; Koszalka *et al., 2021;* Laal and Gohdsi, 2012). Students' intrinsic cues, together with the different roles they can play, lead teachers to avoid individualistic and competitive learning structures to focus on collaborative methods, such as teamwork or debates. Furthermore, due to the constantly changing job market, teamwork and debate are necessary learning tools to enhance students' communicative and relational skills (Brink and Costigan, 2015; Fandos-Herrera *et al., 2023;* Hernández Lara *et al.,* 2021). Collaborative learning activities enable teams to get involved in tasks that improve performance, conflict resolution and help to develop positive personal values (O'Neill *et al*., 2017).

This study analyses the activity of the discussant role, where the students actively collaborate in the learning process (Fandos-Herrera *et al*., 2017). Throughout the activity, the teacher fosters critical thinking by allowing the students to actively interact in class and give feedback to their classmates through discussion and debate with a real and critical standpoint, based on their cognitive experience. Therein, it is expected that this interaction will have positive effects on students' evaluations, as well as on their cross-curricular and subjective learning performances. This study follows the approach of the student-focused strategy, where the main role of the teacher is to foster critical thinking and allow students to develop and change their conceptions (Prosser and Trigwell, 1998; Trigwell *et al.,* 1999). According to this approach, the teacher can boost students' self-learning, conversation and discussion in order to provoke fruitful debate.

This study focuses on the perceived interactivity in collaborative learning through the activity of the discussant role and analyses how it impacts on students' final evaluation, thereby affecting cross-curricular and subjective learning performance. To do so, this investigation collected data at the beginning and at the end of the semester when the subject, marketing research, takes place, with the intention of measuring students' expectations and final perceptions. Therein, the expectation-disconfirmation theory (Oliver, 1977) is employed to frame the study. The contribution of this work is to highlight the salience of the discussant's role in student-focused strategies based on collaborative learning activities. Through teamwork and debate interactions in the classroom, students can improve their performance, resulting in the development of skills for business life.

In the following sections, the study is contextualized and framed in the theory of expectation-disconfirmation, and the hypotheses are developed based on the differences between final perceptions and expectations. The data collection and procedures are explained in the methodology section, followed by the presentation of the empirical results. Finally, the study concludes with a discussion of the main findings.

Theoretical framework

Expectation-disconfirmation theory (Oliver, 1977) states that individuals' attitudes are based on the satisfaction resulting from the comparison between their expectations and their experience, when they confirm or disconfirm their beliefs. Hence, this theoretical framework has been widely used to explain consumer post-purchase behaviours (Bhattacherjee, 2001; Casaló *et al.,* 2010; Nam *et al*., 2018). Likewise, expectation-disconfirmation theory has been used to explain students' satisfaction in higher education (Ali *et al*., 2016; Appleton-Knapp and Krentler, 2006;

Athiyaman, 1997). Students' satisfaction in higher education is the difference between the expectations they have at the beginning of a course and their post-learning experience perception once the course has finished (Fandos-Herrera *et al.,* 2017).

Nowadays, due to the adaptation of higher education institutions to the new European regulation established under the Bologna system (European Commission, 2012), teachers are expected to not only to share knowledge, but also to foster the acquisition of certain key competencies related to students' proper inclusion in working life. Hence, through activities such as the discussant role, teachers boost employability by trying to recreate real-life experiences that develop students' readiness to deal with real business issues related to the subject. Moreover, this kind of learning strategy, which enhances students' skills needed for the starting of their working lives, is expected to improve learning outcomes related to real working experience (Knight and Yorke, 2003). Therefore, it is interesting to study students' expectations of how these types of activities will affect their learning performances. This learning process, based on active real-life situation experiences, can be seen as a way of understanding their satisfaction with the activity.

Drawn on the disconfirmation of expectations paradigm, this research compares expectations and experiences through two questionnaires, completed at the beginning and end of the semester. The first questionnaire was aimed to explore students' expectations about the discussant activity at the beginning of the course. The second questionnaire was aimed to collect data about users' factual experiences. Hence, this second questionnaire was distributed among the same students at the end of the course, after having participated in the discussant activity throughout the entire semester. The combination of both samples (from questionnaire 1 and questionnaire 2) allows us to check the confirmation and disconfirmation of students' beliefs (the questionnaires are described in section 3.2). Expectation-disconfirmation theory (Oliver, 1977) postulates that satisfaction is the result of the comparison between expectations and reality; therefore, in this research, contextualized in higher education, we consider that this satisfaction is translated into the evaluation activity and, into cross-curricular and subjective learning performance, in particular.

Hypotheses development

Discussant activities are ideal for designing collaborative learning environments to pursue critical thinking (Fandos-Herrera *et al.,* 2023; Koszalka *et al.,* 2021). Collaborative learning has been widely used as a technique to encourage active participation both in the classroom (Fandos-Herrera *et al.,* 2023) and online (Strauß and Rummel, 2020); and it is still a prominent way of positively impacting students' learning process (Muñoz-Carril *et al.,* 2021). Active and collaborative learning research states that fostering interactivity in the classroom positively impacts students' learning outcomes (e.g., Boyle and Nicol, 2003; Chen, 2020; Fandos-Herrera *et al.,* 2023; Haseman *et al.,* 2002; Sims, 2003). Moreover, it has been shown that interactivity helps students to progress in the active process of the course contents (Blasco-Arcas *et al.*, 2013) and enables diverse learning approaches (Haseman *et al.,* 2002). Behaviourist and constructivist learning approaches assert that interactivity in the classroom has a positive effect on learning. On the one hand, the behaviourist approach states that student self-assessment and feedback can be improved through encouraging interactivity (Siau *et al.,* 2006). On the other hand, the constructivist approach, which is based on the learner internally processing data into knowledge systems, highlights that interactivity can enhance students' engagement and attention in learning (Sims, 2003). That is, if students perceive interactivity within the classroom, they feel more encouraged to learn, pay more attention, are more participative and

are more willing to exchange ideas with teachers and other students than when they do not perceive interactivity (Siau *et al*., 2006).

As interactivity has been directly related to learning outcomes (Bravo *et al.,* 2016; Fandos-Herrera *et al*., 2017), it is reasonable to hypothesize that students' perceived interactivity will have a positive effect on the activity evaluation. In this study, based on the work of Simsek (2008), we consider that evaluation performance refers to the difference between students' perceptions and expectations about how the discussant activity is going to make them enjoy debating, make participation easier, help them to learn the contents of the course, improve relationships with classmates and to achieve certain skills for the future career.

Moreover, it is said that the more interactivity students perceive, the greater their motivation to learn is, the more attentive they are and they are more willing to exchange their ideas at class (Blasco-Arcas *et al*., 2013; Fandos-Herrera *et al*., 2017; Sims, 2003). Hence, interactivity can improve the cross-curricular abilities needed as preparation for students' entry into the job market (Orús *et al*., 2016), such as communication, teamwork skills, critical thinking and problem solving among others. Likewise, participation lets students learn without consciously realizing (Orús *et al*., 2016). We hypothesize that:

H1: Perceived interactivity will positively influence the final evaluation of the discussant activity.

H2: Perceived interactivity will positively influence cross-curricular learning performance.

H3: Perceived interactivity will positively influence subjective learning performance.

The activity of the discussant role recreates a real-life situation where students' must use critical thinking to debate ideas, showing not only their communication and relational skills, but also their knowledge. This can be described as experiential learning activity (Alon and Herath, 2014; Hamer, 2000; Orús *et al*., 2016). Experiential learning has been described as a holistic process of creating knowledge through adaptation to the world (Kolb and Kolb, 2005). Current university teaching programmes aim to not only to transfer knowledge to students, but also to prepare them to face real world situations through promotion of active experiential learning. In this way, it is expected that the discussant activity will exert an increase in the learning performance outcomes related to the acquisition of competencies. In this research, we refer to this type of learning performance outcomes as cross-curricular or subjective, due to the characteristics of the debate resulting from the discussant role activity. As has been previously stated, it can be supposed that the discussant activity will provide students a certain degree of interactivity that will affect their evaluation and learning performance, since learning benefits from interactive environments where everyone can express and exchange ideas freely (Brower, 2003). Nevertheless, it is reasonable to think that the final evaluation will also have a positive effect on cross-curricular and subjective learning performance. Therefore, we propose the following hypotheses:

H4: Final evaluation of the discussant activity will positively influence cross-curricular learning performance.

H5: Final evaluation of the discussant activity will positively influence subjective learning performance.

The research model presents the relationships between perceived interactivity and evaluation, and cross-curricular learning performance and subjective learning performance in

the context of the discussant activity (see figure 1). Moreover, the model proposed shows the influence of the discussant activity on cross-curricular learning performance and subjective learning performance.
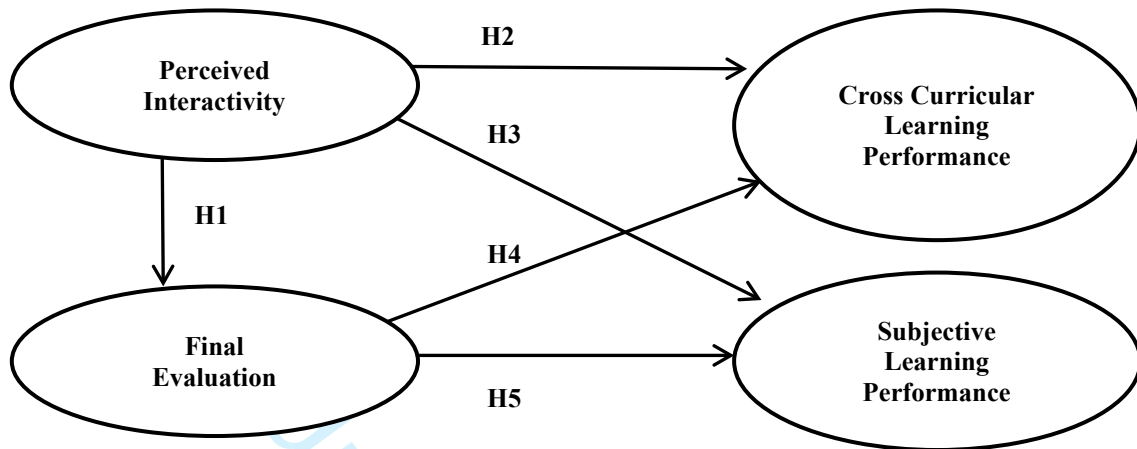

Figure 1. Research model

Methodology

Data collection procedure

Data were gathered by means of two questionnaires carried out in class at the beginning (questionnaire 1) and at the end (questionnaire 2) of the semester. After excluding incomplete responses, we obtained 161 valid pair of questionnaires. The anonymity of respondents was guaranteed by asking them to provide a nickname to be used when completing both questionnaires in order to be able to compare their pre- and post-perceptions without real names or any other personal data being collected.

All the responses were measured using a seven-point Likert scale and came from the specific literature on education. The first questionnaire included 13 questions about students' expectations on the learning outcomes derived from the discussant activity. An initial set of five items focused on subjective learning as measured by Orús *et al.* (2016). The next eight items captured subjective learning performance based on the official university report of the degree in business management and administration (business management and administration official syllabus report), the teaching guide of the course (teaching guide) and similar questionnaires used by European institutions. All these items were also measured on the second questionnaire, which focused on final perceptions of the discussant activity. The second questionnaire also measured interactivity through three items adapted from Blasco-Arcas *et al*. (2013) and final evaluation through five items based on Sagin (2008). The appendix includes the specific items used in both questionnaires.

In our study, subjective learning performance and cross-curricular learning performance were determined by subtracting the initial expectations (questionnaire 1) from the final perceptions (questionnaire 2). We used the disconfirmation of expectations paradigm to measure satisfaction and service quality (Cronin and Taylor, 1992; Hill, 1995; Parasuraman *et al.,* 1988). Hence, these factors can serve as success indicators by indicating whether students have learnt based on their initial expectations.

Context and participants

The data was collected from a sample of undergraduate students enrolled in a marketing research course in a major Spanish university. This course is taught in the second year of a

business management degree and the assessment consists of two parts, accounting for 60% (exam) and 40% (research project or additional questions in the exam) of the students' marks respectively. The first part is a mandatory written examination, whereas the second part consists of either additional questions in the final examination or the development of a real marketing research project undertaken in groups of between four and six students. Students are able to choose which of these options they prefer.

The students who choose to carry out a marketing research project must prepare four progress reports and a full final report. In total, they must deliver five assignments. These consist of the research proposal (assignment one), the employment of three marketing research techniques (assignments two to four) and the preparation of a comprehensive final report (assignment five). In addition, they have to make an oral presentation to the class and provide feedback about the research activities performed by other groups. This is when the discussant activity occurs.

The discussant activity requires students to adopt a double role as discussants (role of being reviewer) and discussed (role of being under review). In order to avoid potential problems of collusion or animosity, each group has to discuss, and be discussed by, a different group for each of the five assignments. As discussants, each group is required to elaborate on a set of critical and constructive comments on other group's assignments. This must be presented both in writing and orally. In class, the discussed group presents its own assignment, and the discussant group presents their main concerns. Then, a discussion starts between the discussant and the discussed, in which the rest of the students within the class are encouraged to participate. The reviews of the discussants may be helpful for the discussed group to improve subsequent assignments. In the end, groups can prove that they have taken into consideration the discussant comments by preparing a report of improvements to be delivered together with the final assignment.

In summary, the discussant activity aims to facilitate interaction between students and teaches them how to discuss and argue ideas among peers. Some students may follow their teacher's suggestions just because the teacher says so. However, the decision of whether to adopt a recommendation from a peer may reflect more critical and rational thinking.

Results

The proposed model was tested using partial least square (PLS) regression with SMART-PLS software. This method has been widely used in previous literature to test simultaneously different linear regressions between factors composed of several items (e.g., Fandos-Herrera *et al.*, 2017; Wu *et al.,* 2010).

First, the validity and reliability of the measurement instruments were tested (Ringle *et al.*, 2015). Table 1 and Table 2 summarize the main findings of the analysis, which indicate that the factors were appropriately measured as the composite reliability and Cronbach's alpha coefficients were higher than 0.7, whereas Average Variance Extracted (AVE) exceeded the threshold of 0.5 (Hair *et al.,* 2017). The AVE for any two constructs was also greater than their squared correlation, which confirms the discriminant validity of the scales (Fornell and Larcker, 1981). It should be noted that two items were deleted from their respective scales due to low factor loadings (Hair *et al.,* 2017).

Table 1. Construct Indicators

	Mean	Standard deviation	Composite reliability	AVE	Cronbach's alpha	R^2 value
Interactivity of the activity	4.69	1.19	0.931	0.770	0.901	-
Evaluation of the activity	4.31	1.24	0.932	0.775	0.903	0.345
Cross-curricular learning performance	-0.73	1.19	0.922	0.598	0.904	0.223
Subjective learning performance	-0.42	1.39	0.931	0.770	0.901	0.248

Table 2. Results of the discriminant validity analysis

	Interactivity	Evaluation	Cross-curricular LP	Subjective LP
Interactivity	**0.770**			
Evaluation	0.345	**0.775**		
Cross-curricular learning performance	0.145	0.203	**0.598**	
Subjective learning performance	0.160	0.226	0.523	**0.770**

Note: Figures in the diagonal present the AVE values. Off-diagonal figures represent the constructs' squared correlations.

The second step of the PLS analysis involved testing the hypotheses. As shown in Table 3, all the structural parameters obtained statistical significance at either 90%, 95% or 99% confidence level. Therefore, there is no empirical evidence to reject any of the hypotheses. In addition, R^2 values were above the critical threshold of 10% (Falk and Miller, 1992). These results were ensured using a bootstrap test of 5,000 resamplings.

Table 3. Results of the structural model

Hypotheses	β (t)	t-value
H1: Interactivity – Evaluation	0.587	10.592***
H2: Interactivity – Cross-curricular learning performance	0.179	1.868*
H3: Interactivity – Subjective learning performance	0.183	2.000**
H4: Evaluation – Cross-curricular learning performance	0.345	3.288***
H5: Evaluation – Subjective learning performance	0.368	3.920***

Note: *** significant at $p<0.01$, ** significant at $p<0.05$, * significant at $p<0.1$

As expected, the evaluation of the discussant activity is highly dependent on interactivity (β=0.59, $p<0.01$), which gives support to hypothesis 1. Thus, it is confirmed that the general assessment of the discussant activity is closely related to the degree of interaction perceived by the student. When it comes to the effects of interactivity on learning performance, the standardized coefficients are the same for cross-cultural and subjective measures (β=0.18). It is significant in both cases, which lends support to hypotheses 2 and 3.

According to our results, the effect of evaluation on learning performance is stronger than the effect reported for interaction. As predicted in hypothesis 4, evaluation has a significant effect on cross-cultural learning performance ($\beta=0.345$; $p<0.01$). Moreover, in line with hypothesis 5, evaluation is strongly associated with subjective learning performance ($\beta=0.368$; $p<0.01$). As in the case of interaction, the effect of evaluation is similar regardless of the type of learning.

Conclusions and discussion

Nowadays, the university system tries to standardize teaching in order to offer an overall education adapted to a homogenous target, where areas, such as general teaching issues, classroom activities, textbooks options, scoring regulations and ways of grading, are predominantly standardized. This perspective minimizes individual differences in higher education, while also providing a rigid structure to which students must adapt. However, several studies have shown that students' ways and paces of learning are not always the same, leading to different levels of interactivity and outcomes (Blasco-Arcas *et al.,* 2014; Bravo *et al.,* 2016; Fandos-Herrera *et al*., 2017).

Hence, the main purpose of this study was to explore the effects that a collaborative learning innovation task developed in the classroom, such as the discussant role activity, may have on interactivity and how it affects students' perceptions of learning. More specifically, the paper has examined how perceived interactivity in collaborative learning through the activity of the discussant role has a positive impact on students' final evaluation, resulting in an enhancement of cross-curricular and subjective learning performance. The perception of interactivity and learning performance is decisive in the context of the discussant activity, since the more interaction and learning the students experience, the better the expectations of the learning activity will be reached, resulting in higher levels of cross-curricular and subjective learning performance. In this sense, the proposed model shows that interactivity has a positive effect on the evaluation of the discussant activity, and a positive direct and indirect impact on learning performance. That is, the final evaluation turns into an improvement of cross-curricular and subjective learning performance. These results offer teachers ideas not only to improve students' learning performance but to put on the table the importance of cross-curricular competences which are sometimes disregarded. Frequently, students' long-term objective goes further than passing a course and focuses on becoming a future competitive job candidate. An activity such as the discussant targets this twofold objective.

Therefore, the empirical findings allow us to conclude that student competencies, such as cross-curricular and subjective learning, can be enhanced through the debate generated by interactive collaborative methodologies. Specifically, when students develop collaborative learning and teamwork, perceived interactivity can enable key competencies for real-life situations to be developed, since it facilitates interactions with the classmates and gives students the opportunity to discuss their cognitive experience. Due to the discussant role activity being focused on both discussing the strengths and weakness of the other student projects and having their own project discussed in the classroom, the comments from students can be beneficial for the entire classroom. Even if the comments have a negative direction or are more focused on weaknesses, effective debate makes way for learning from mistakes. That is, failure is seen as an improvement opportunity, resulting in an improvement also for the overall understanding of the subject. Students learn to get on well in real-life situations where is important to expose critical thinking. In this way, the discussant activity trains students to get self-confidence in this competence.

This research offers interesting insights from the academic and teaching perspective. First, this study tries to go beyond the research teaching line to include the discussant role as a learning tool in business studies in general, and in marketing in particular. Moreover, it has been shown that the discussant role activity creates a higher interactivity expectancy among the students and can complement traditional learning strategies. This finding has also been obtained in previous studies (Fandos-Herrera *et al.*, 2019).

Second, from the teaching perspective regarding the overall subject, this work demonstrates the importance of giving support to the utilization of collaborative learning methodologies, such as the discussant activity in the classroom. The teacher has to create a learning environment that develops the relationship among students and with the teacher. The result of these activities will be translated into a higher perception of interactivity that positively affects students' evaluation and surpasses their expectations. Therefore, this study allows us to recommend implementing this type of activity where possible in order to foster participation, debate and critical thinking. These activities can also play a role in the proper encouragement of grading, motivation and acquisition of competencies. Based on our empirical results, this study highlights the importance of fostering students' interactions. Specifically, the findings suggest that teachers should add subjective learning indicators to the evaluation criteria, due to their connection to cross-curricular competences. These results also reveal the importance that the students value the activity in a positive way, because it will generate the right mental and emotional state to achieve the desired skills. It would be positive for teachers to assess the degree of satisfaction and engagement of their students while working on projects that require a lot of time and effort, by using tools such as questionnaires. In this vein, if teachers obtain at least one measurement before finishing the activity, it would be possible for them to take corrective measures.

Students' employability is becoming a priority in curriculum design (El Mansour and Dean, 2016). Specifically, in the development of teaching programs in economics and business studies, students are strongly recommended to take subjects related to business communication and critical thinking, as well as participate in activities that help in acquiring key competencies to help them transition into their future working lives. Activities that contribute to students' preparation for facing real-life business situations not only enhance students' communicative and relational skills to meet the demand of the workplace (Brink and Costigan, 2015), but also improve learning outcomes related to forthcoming working experience (Knight and Yorke, 2003). Thus, the model proposed helps teachers by recommending the discussant role activity as a way of improving these competencies.

This study shows that students can boost their skills for business life through collaborative learning activities, such as critical thinking communication, teamwork business decisions and debate interactions. Consequently, the main implication of this research lies in the fact that this type of active collaborative activity fosters students' competencies while boosting their performance. The acquisition of real-life business competencies is key to students' effective integration in the job market.

Nowadays many students apply for jobs in international and multicultural companies, so the competencies in communication are of great importance. Therefore, future lines of research should explore the effects of the discussant role activity when teaming up in a multicultural environment, as well as when interacting with other cultures. As a follow up study of this present research (part of an innovation teaching project), the authors are internationalizing the discussant role activity so it can be used with other European universities. In this way, the international environment could be recreated. This will allow analysis of whether the European

Economic Space offers a similar educational context or if there are differences regarding the curriculum, learning experience or student level with the implementation of the discussant role activity in different situations and locations.

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Appendix: Composition of the scales

INTERACTIVITY (Blasco-Arcas *et al*., 2013)
I expect/think that carrying out the discussant activity…
(1) …facilitates/facilitated interaction with my peers (classmates)
(2) …gives/gave me the opportunity to discuss with my peers (classmates)
(3) …facilitates/facilitated dialogue with my peers (classmates)
EVALUATION (Simsek, 2008)
I expect/think that carrying out the discussant activity…
(1) …makes/made me enjoy more debates
(2) …makes/made class participation easier
(3) …helps/helped me to learn the contents of the course
(4) …has/had a negative influence on my relationship with my classmates (reverse item)*
(5) …helps/helped me achieve abilities, such as communications skills, which are very useful for my future career
SUBJECTIVE LEARNING PERFORMANCE (Orús *et al*., 2016)

I expect/think that carrying out the discussant activity…
(1) …improves/improved my comprehension of the theoretical concepts of the course
(2) …improves/improved my learning of the course
(3) …improves/improved my knowledge of marketing
(4) …improves/improved my knowledge of marketing techniques, strategies and decisions followed by real companies
(5) …has/had a positive impact on my final grade of the course
CROSS CURRICULAR LEARNING PERFORMANCE (Official university report of the degree in Business Management and Administration, goo.gl/fS2f0K; Teaching guide of the course goo.gl/VB5h1N)
I expect/think that carrying out the discussant activity…
(1) …helps/helped me to improve my ability to work in group
(2) …helps/helped me to expand my capacity to communicate, both orally and in writing, knowledge, ideas and outcomes of the activities and projects carried out
(3) …improves/improved my capacity to issue reports about specific market situations, industries, organizations, companies and their functional areas
(4) …improves/improved my capacity to comprehend and apply professional criteria with scientific rigour to the solving of economic, business and organizational issues
(5) …improves/improved my capacity to know the operations of all the functional areas of any company and have the skills to perform any task within these areas
(6) …improves/improved my ability to analyse and search for information from diverse sources
(7) …improves/improved my problem-solving capability
(8) …improves/improved my ability to analyse and synthesize

Note: All the variables were built as the difference between final perceptions and expectations measured on seven-point Likert scales. *This item was deleted in the analysis process due to a low factor loading.

14