DEVELOPMENT AND ANALYSIS OF PSYCHOSOCIAL CASE STUDIES BY STUDENTS TO BUILD BRIDGES BETWEEN THEORETICAL CONCEPTS AND EVERYDAY REALITY

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Abstract

The aim of this study was to examine the effects of an active learning methodology based on the development of case studies by college students on academic performance and on students' capacity of understanding and analysing human behaviour. A total of 427 students who were taking the subject Social Psychology at the University of Barcelona participated in the study. Among them, 306 students attending to six different classes developed written stories where psychosocial concepts were represented, being the remaining 121 students who attended to other two classes treated as a comparison group. Results showed that students who carried out the project improved their ability to identify and explain theoretical concepts when analysing case studies created by the teaching team. The proposed teaching methodology appears to enhance their ability to link theoretical concepts to realistic events in order to understand and analyse human behaviour.

Keywords: Behaviour analysis skills, case method, case-based teaching, social psychology.

1 INTRODUCTION

The incorporation of new learning methodologies in which students have to acquire an active role in their learning process complements and overcomes the limitations of other more traditional teaching methods. Evidence shows that students who participate in activities based on active learning methodologies interact more actively with the course material, tend to retain learnings longer, and are able to better apply their knowledge [1]. These teaching methodologies have the objective of promoting not only the students' learning process, but also their engagement [2], their personal strengths [3] and their skills [4], being the latter understood as complex behaviours that mobilize resources in a relevant and contextualized way. A skill that social psychology educators have to promote in their students is the capacity of understanding and critically analysing human behaviour, since it is a complex aptitude that all psychologists need to perform in their professional career.

Among other active learning methodologies, the analysis of case studies has been applied in recent years in the higher education area to encourage, facilitate and enhance students' learning process [5, 6]. Case studies can be defined as stories that represent real, complex and contextualized situations, which often involve dilemmas, conflicts or problems with no obvious solution [7]. The stories represented at case studies help to contextualize the theoretical concepts learnt during the classes in an innovative and creative way, promoting sharing ideas and experiences [8]. The use of this methodology can be beneficial for both students and teachers.

On the one hand, several studies found that the use of case studies promotes the acquisition of complex skills such as integration of concepts, analytical capacity, communication skills [9], critical thinking [10], or teamwork [11]. Case studies can also be useful for building the capacity of diagnosis and decision making in the field of social problems [6], which is relevant to the academic and professional development in different disciplines such as psychology, nursing, law or business [12]. Likewise, this methodology implies a constructivist learning environment that motivates the students' self-regulation [13, 14], since they must learn the relevant content, organize it mentally, integrate it into their prior knowledge, and apply it into a contextualized situation. In addition, this type of learning activities can contribute positively to the motivation [9] and enjoyment of students during the learning process [2]. Finally, case studies help to develop the dialectic between theory and practice, providing fertile ground for the application of conceptual content to real world situations, overcoming the gap between academia and the real world [15, 16].

On the other hand, evidence suggest that a teaching method based on case studies in a positive practice that is also beneficial for teachers, encouraging reflection about their teaching role, renewing their interest in the course material, and increasing their level of enthusiasm, which can be transmitted

to the students [5]. The preparation of case studies has typically fallen under the responsibility of teachers, being sometimes under-used because it implies a difficult task due to the amount of resources needed to develop them [10, 17]. Nevertheless, case studies can also be developed by the students themselves, facilitating collective building of knowledge throughout the students' learning process [2, 11]. Although different studies showed an improvement of the learning process when students write and analyse their own case studies, there are not studies that compare the performance between students who develop case stories themselves and students who carry out more traditional learning methodologies. Thus, it is still necessary to evaluate if in comparison with traditional methodology, students who participate in an activity of case development have a more significate learning and, in consequence, achieve higher academic performance.

The aim of this study was to examine whether the development of case studies by the students themselves enhances their skill of understanding and analysing human behaviour, and in consequence, their achievement of a higher academic performance, in comparison to students who carry out more traditional learning methodologies.

Specifically, we have developed three hypotheses:

Hypotheses 1: Students who develop a case study by themselves achieve higher scores in a subsequent case analysis activity in comparison to the scores obtained in a previous case analysis.

Hypothesis 2: Students who develop a case study by themselves achieve higher scores in a subsequent case analysis activity in comparison to the scores obtained by students who perform a more traditional learning activity.

Hypothesis 3: Students who develop a case study by themselves achieve higher scores in the final exam of the subject in comparison to the scores obtained by students who perform a more traditional learning activity.

2 METHODOLOGY

2.1 Participants

A total of 427 students who were taking the Social Psychology subject offered at the first course of the Degree of Psychology at the University of Barcelona in Spain participated in the study. Of the participants, 77% were female and 23% male, which is a common percentage of gender distribution within the Psychology Degree.

2.2 Procedure

The teaching methodology based on the development of case studies was performed with 306 students attending to six different classes. The remaining 121 students who attended to other two classes were treated as a comparison group and they were asked to elaborate a dissertation, instead of the development of case studies. All the participants carried out the three evaluation activities proposed below.

2.2.1 Case development activity

The development of a case study was presented as a project to be done during the academic semester. In order to promote interdependence, collaboration and creativity in the development of case studies, students were grouped into teams composed mainly of four members. No criteria were established to group the students, leaving to them the decision. In a first class session, a main topic of the subject was randomly assigned to each group (i.e., conformity and compliance, aggression, attitudes, interpersonal attraction, and pro-social behavior). The learning activity was structured into the following tasks: (a) development of a glossary where the main psychosocial concepts of the assigned topic had to be defined; (b) development of a case study in which a realistic, complex, detailed, contextualized social situation had to be described, and in which six theoretical concepts defined in the glossary had to be properly represented; and (c) elaboration of a separate report specifying the conceptual content reflected in this story and its rationale.

The first task consisted in developing a glossary where each team of students had to elaborate a list of the psychosocial concepts related to their topic and define them (e.g., need for affiliation, stigma, principle of reciprocity, foot-in-the-door technique, or cognitive dissonance). For doing this, students had to do an in-depth reading of the subject textbook, in order to extract the basic theoretical concepts

and to develop a unified definition for each of these concepts in their own words. The second task consisted in the development of a story in which a realistic, complex, contextualized social situation, relevant for the students, had to be described. Students were asked to represent in the story six of the psychosocial concepts listed in the glossary. The main indications given to the students for elaborating the story were: (a) it should represent the selected psychosocial concepts accurately, without making conceptual errors and without specifically saying the name of the concept; (b) the story described in the case need to have a clear social interest and being related to the experiences of the students; and (c) the case should have a structure, a coherent sequence with beginning, middle and end, and being written in a narrative style. The final task consisted in submitting together with the case study a separate report that contain the correction guide for the analysis of their own cases. In this report students were asked to: (a) specify which concepts are represented in their case; (a) specify in which fragment of the text it is represented each concept; and (3) explain how was represented each concept in the story, relating their definitions with the relevant fragments of the text.

2.2.2 Dissertation activity

The comparison group was asked to create a dissertation about a main topic of the subject, being an activity to be done during the academic semester. As before, participants were grouped into teams composed mainly of four members and no criteria were established to group the students and to decide the topic of the dissertation, leaving to them the decision. First, students had to explore the selected topic reading the subject textbook and search more information in the main databases of Social Psychology (e.g., PsycInfo, Sociofile). After performing this task, they had to prepare an oral exposition that will be conducted in the last days of the course and write a document with the information they gathered. Also, they were asked to indicate in that document the most important things learnt in this project, which can be related with the topic of the dissertation, the search of articles in scientific databases, or with the procedure of doing the activity.

2.2.3 Evaluation activities

In order to assess the impact of the project on the students' learning process, three evaluative activities were conducted. These three activities were carried out by the students who participated in the activity of case development and by the students of the comparison group, who did the dissertation activity. Each evaluation activity was assessed using a score ranging from 0 to 10. The first two activities consisted of analyzing cases developed by the teachers' team. The first analysis of a case was made during the second month of the course before starting the project. In this first activity, students were asked to analyze a story where six psychosocial concepts related to the topic of "casual attributions" were represented. During the last month of the course, after the students who participated in the project developed their own cases, all students analyzed another case developed by the teachers where other six concepts related to the topic of "prejudice" were represented. In both cases, teachers explained the topic in a class session one week before and they assessed the activities using an evaluation rubric. The third activity consisted of a final exam composed of 40 multiple-choice questions, which presented concise social situations. Students had to choose between the possible answers the one that refers to the psychosocial concept represented in each situation.

3   RESULTS

On the one hand, we compared the scores obtained by each group of students in both case analysis activities, examining whether or not the case development activity and/or the dissertation activity had a positive impact in the performance of the second case analysis activity. The main results showed that the academic scores obtained in the second case analysis by students who developed a case study were significantly higher than the scores they obtained in the first case analysis (t = -8.74, p < .001). In contrast, students of the comparison group obtained lower scores in the second case analysis than in the first case analysis (t = 2.58; p = .011). These results provide evidence that confirm the first hypothesis, since only students who carried out the case development activity achieved a better performance in the second case analysis activity.

On the other hand, we compared across groups the scores obtained in the three evaluation activities, examining whether or not the students who developed a case achieved better marks in the second case analysis activity and in the exam than those students who did the dissertation. Table 1 shows the scores obtained by both groups of students. Results showed that, meanwhile both groups obtained similar marks in the first case analysis (t = -1.55, p = .123), students who carried out the project obtained higher scores in both the second case analysis (t = -10.77; p < .001; d = 1.17) and in the final

exam (t = -5.06, p < .001; d = 0.54). Therefore, the second and the third hypothesis were confirmed. Students who carried out the case development activity achieved a better academic performance in comparison to students who carried out a more traditional learning activity.

Table 1. Mean scores and standard deviations of the assessment activities

	Students who did the case-development activity		Students who did the dissertation activity			
	M	*SD*	*M*	*SD*	*t*	Cohen's *d*
1. First case analysis	6.01	2.92	5.62	1.99	-1.55	0.16
2. Second case analysis	7.52	2.12	5,11	2.01	-10.77	1.17
3. Exam	5.96	1.64	5,06	1.72	-5.06	0.54

4   CONCLUSIONS

The main goal of the present study was to introduce the case studies methodology within the learning process of collage students in an innovative way and to explore if the development of cases by the students themselves enhanced their performance in the assessment activities. Our results showed that writing a case in which theoretical concepts had to be represented lead to a better academic performance, not only in the analysis of cases created by the teachers' team, but also in the final exam, in comparison with the students who didn't made the activity. The proposed teaching methodology, which implied an active role of the student in both the development and the analysis of case studies, seems to facilitate the learning of the theoretical concepts of the subject towards the final assessment, as well as students' ability to understand and analyse human behaviour.

This activity not only improved the autonomy and performance of the students and their knowledge of the theories and practices regarding the field of study, but also involves more learning opportunities, like improving their ability to contextualize the concepts learnt in a creative and innovative way [2]. Students were active subjects of their own learning process, understanding and learning in a more significate way the theoretical concepts of the subject by representing them in realistic stories related to their experiences [18]. In addition, at creating their own case studies by themselves, students may feel more confident regarding how to deal with the future cases presented by their teachers, decreasing the possible anticipatory anxiety [19, 20].

Future studies are necessary in order to explore more deeply the effects of the proposed methodology in the students' performance. Conducting a longitudinal design should be considered for exploring the level of recall of the concepts used in the preparation of the case studies and other theoretical concepts related to the subject. Likewise, it may be interesting to explore if case studies developed by students in a traditional written format could be complemented with the elaboration of other material based on the information and communication technologies, such as short film, thus generating greater involvement and more meaningful learning.

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