Futurity Publishing

SECTION: PEDAGOGICAL SCIENCES.

SEKCJA: NAUKI PEDAGOGICZNE.

How to cite: Andreou, G., Gillies, R., & Gkantaki, M. (2023). Collaborative Learning in Higher Education in Greece and Australia: Advantages and Challenges. Global Innovations and Collaborative Solutions in Contemporary Science. (pp. 70-75). Futurity Research Publishing. https://futurity-publishing.com/international_conference_3/

Collaborative Learning in Higher Education in Greece and Australia: Advantages and Challenges

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Accepted: October 8, 2023 | **Published**: November 3, 2023 | **Language:** English.

Abstract: The present study aimed to investigate the advantages and challenges of implementing collaborative learning (CL) in higher education in Greece and Australia. Ten university instructors from both countries participated in this research by answering interview questions on the topic of CL. The results of the study showed that there are many similarities between the two countries concerning the advantages and challenges of implementing CL in higher education. However, further research is needed on the subject in order to give support to the claim that CL has a positive impact on higher education students' learning across countries and cultures.

Keywords: collaborative learning, higher education, Greece, Australia.

Introduction

CL is an effective pedagogy used to promote learning and critical thinking and it helps to develop students' communication skills, enhance self-regulated learning, and promote academic motivation (Cámara-Zapata & Morales, 2020). Students' learning is positively influenced by the relationships they create with each other and as a result, when students feel supported and safe in their classroom, learning is enhanced (Barksdale et al., 2021). Research indicates that CL creates such an environment, wherein students have opportunities to collaborate together and share their academic experiences, which promotes mutual learning (Eryilmaz & Cigdemoglu, 2019). Instructors are crucial in promoting dialogue among their students by teaching them how to ask questions, express their ideas, and evaluate the relevance of the topics they are discussing. Consequently, providing clear guidelines and task instructions play a crucial role in maximizing the effectiveness of such interactions (Sumtsova et al., 2018).

In particular, at universities, students often interact and collaborate in small groups to complete tasks like presentations, seminars, and group projects. Research indicates that working in groups encourages students to actively engage with the course content, develop their interpersonal skills, and gain a deeper understanding of complex concepts (Gisbert et al., 2017). In addition, it has been shown that individual differences that might exist among the members of the groups do not impede group productivity, but rather have a positive impact overall as they provide diversity within the group and perspectives which lead to innovative solutions to problems and a higher quality of the work produced (Nguyen-Phuong-Mai, 2019). However, although CL is often seen as beneficial, many instructors find it challenging to implement it in their classes (De Hei et al., 2015). Dependence on others for solutions and lack of time for group work may be factors that contribute to this challenge (Buchs et al., 2017).

While previous research has shown the benefits and challenges of CL (Chiu & Cheng, 2017; Gillies, 2011) and its impact on students' learning, few studies have focused on the perspectives of university instructors who apply CL in their classes. Further investigation is needed to determine how CL can be effectively integrated into university teaching and learning. Therefore, this study, conducted by researchers from Greece and Australia, aims to investigate the advantages and challenges as perceived by university instructors themselves in CL environments hoping to contribute to the understanding of the factors that play a crucial role in the university instructors' choice of implementing CL in their classes.

Main material

A case-study design with an interpretative-qualitative approach was used. In this study, thematic analysis, which is a foundational method for qualitative analysis, was employed to examine the collected data. Five instructors from the School of Education of the University of Queensland (UQ) in Australia and five instructors from the School of Humanities of the University of Thessaly (UT) in Greece were invited to participate in an interview on the topic of CL. The criteria for inclusion in the interview process were: implementation of CL in the class, and willingness to participate in an interview. The participants were 2 male and 3 female instructors from UQ, and 2 male and 3 female instructors from the UT. All instructors answered to interview questions and the average time for each interview was 25 min. Semi-structured interviews were conducted by researchers at the UQ in November and December 2022, and at the UT in April and May 2023. The interview questions were designed to be open-ended, enabling participants to provide additional information as they saw fit. During the interview the following two (2) questions were discussed:

1. What do you think are the advantages of implementing CL in your classroom?

2. What do you think are the challenges you face by implementing CL in your classroom?

At both universities, the authors collected and grouped the responses given by the participants. The researchers transcribed the content of the interviews, and then they reviewed the interview files and typed the text several times to ensure transcription accuracy. This process aimed to minimize potential errors in transcription. The participants' responses were grouped into themes, according to which of the two areas of interest they belonged, namely advantages or challenges. These themes were identified based on recurring themes and discussions, and this procedure provided a concise way of understanding the main findings of the research. Furthermore, ensuring confidentiality and privacy is a common practice to protect the participants in research studies. This involves concealing their real names and other identifiable characteristics to minimize the risk of exposing their personal information (Cohen et al., 2018). Participants at both universities were de-identified and given a unique ID number (for Greek male and female participants, e.g., GM1, GF2 and for Australian male and female participants, e.g., AM1, AF2). The participants were briefed on the research prior to conducting the research and after the data collection by the researchers. They were assured that their personal information was protected and they signed a consent form in which they indicated their comprehension of the research aims and confidentiality policies as well as their agreement to participate in the research.

Research Results

Regarding the first question, the advantages of CL, the first theme that emerged from the data collection was the learning environment. Participants from both Greece and Australia highlighted the importance of the interactive, pleasant, and safe environment that CL provides. They perceived this as an advantage and highlighted the importance and value they placed on the CL environment by the following comments: GF2: *"CL encourages people to engage in interactions that are not typically associated with traditional education."*, AF3: *"Although my lesson plan is more theoretical in nature, CL has made the classroom more attractive to students."*. This finding confirms previous research which has identified CL as a tool that enables students to learn in an appropriate learning environment (Barksdale et al., 2021).

The second theme that emerged from the data collection was the quality of learning. Participants from both countries agreed that implementing CL in their classrooms enhances the quality of students' learning. All participants believe that CL offers significant benefits to students as new ideas and different perspectives are presented which can help to solve complex problems, as it is shown in the following comments: GF1: "*By working together, individuals can combine their unique skills, experiences, and ideas to find creative solutions to complex challenges. This approach not only leads to better outcomes but also fosters a sense of community and cooperation. So, let's embrace the power of collective thinking and tackle complex problems together."*, AM2: *"CL offers the benefit of fostering creativity among students, encouraging them to present more powerful and insightful perspectives in their group work. Furthermore, it enables students to approach subject matter from various angles, thereby promoting a more comprehensive understanding of the material."*. Our results are in line with those of previous studies which found that CL contributed to comprehensive understanding of the material and to the use of creative solutions (Cámara-Zapata & Morales, 2020; O'Connor et al., 2017), indicating a high quality of learning.

On the other hand, regarding the second question, the challenges of CL, the first theme that emerged from the data collection was the constraints posed by the academic curriculum. In particular, in both universities most instructors referred to the lack of time and the students' concern

about the grading system, as shown by the following comments: GF3: *"University courses are often crammed with material, leaving students feeling the constant pressure of limited time"*, AM1: *"Several students are anxious about their upcoming assessment. They are concerned about their abilities and fear not performing well.".* Previous research has also considered insufficient time a challenge for CL (Buchs et al., 2017), yet there is recent research that showed that effective implementation of CL can actually lead to time savings (Keramati & Gillies, 2022).

The second theme that emerged from the data collection was the constraints posed by students' individual differences, as shown in the following comments: GM4*: "Student diversity is evident in both personality and social skills. Some students are outgoing and prefer to communicate verbally, whereas others are reserved and dislike speaking in public."*, AF5: *"Some students exhibit weak social skills and have trouble relating to their peers."*. The answers provided by the instructors of the UT showed that they referred to individual differences owing to personality traits, while the instructors of the UQ mostly referred to individual differences owing to population diversity. In addition, the instructors of the UT reported insufficient knowledge of teamwork and lack of motivation and cooperative skills on the part of their students, a finding which is in line with a previous study (Le et al., 2018) which also reported the lack of cooperative skills as a challenge. At the UQ the individual differences of the students in CL classes appeared to exist because of the fact that most students are not native Australians, but they are students coming from different cultures mainly from East Asia, especially from China. Research has shown that Asian students are usually strong competitors in classes (Bempechat & Drago-Severson, 1999) a fact which seems university teachers consider a challenge in their implementing CL in their classes.

The third theme that emerged from the data collection was instructors' challenges. In both universities the participants referred to the instructors' attitude towards CL. In particular classroom management and insufficient familiarity of the instructors with CL were the two common challenges, as shown by the comments that follow: GF1: *"Instructors will require greater familiarity with CL as inadequate knowledge about it can hinder its effective utilization."*, AM2: *"Lack of familiarity with CL results in difficulty in using it appropriately, compelling instructors to upgrade skills to gain better control over it."*. Our results concerning the instructors' attitude and their lack of knowledge of how to implement CL in their classroom are in line with the results of previous studies which found a correlation between teachers' knowledge, self-efficacy, attitudes, and subjective norms regarding the use of cooperative learning (Abercrombie et al., 2019; De Hei et al., 2015; Kimmelmann & Lang, 2019; Völlinger & Supanc, 2020)

Conclusions

This study revealed many similarities between the two countries regarding the usefulness of CL in higher education and the advantages it provides as well as the challenges it entails, as perceived by the instructors of Greek and Australian Universities. The results, as shown by the comments and answers given by the instructors of both countries during the interview process, indicate that CL is a valuable teaching and learning approach that should be incorporated into higher education teaching classrooms, yet certain challenges are emerged which are common in both higher educational systems. However, the results of this research should be treated with caution as there are certain limitations. It is a small-scale research in which a limited number of higher education instructors from both universities participated and only those who expressed interest and claimed to use the CL approach in their classrooms. Therefore, the results cannot be generalized as to the advantages and challenges of the CL approach, since with a different methodology, other than the interview, more instructors who use CL in their classrooms might be willing to take part, who had not expressed interest to participate in this study. Therefore, further research with larger samples is

needed on the topic of collaborative learning in higher education, its advantages and challenges and whether those are different among various countries and cultures, in order to strengthen the claim that collaborative learning improves learning outcomes for students.

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