

# **Investigating the Implementation of Cooperative Learning in Lebanese Private Schools and Its Impact on Students' Academic Performance and Behavior**

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## **Abstract**

Although many schools worldwide continue to rely on traditional teaching methods, an increasing number have embraced cooperative learning (CL). Cooperative learning is a widely recognized pedagogical approach that promotes student engagement, critical thinking, and collaborative problem-solving. This study examines the implementation of CL and its impact on student achievement, motivation, and engagement in Lebanese private schools. Using a quantitative survey design, the research investigates how CL influences students' cognitive and social development. The findings indicate that CL enhances student participation and knowledge retention, offering a framework for educators seeking to improve learning outcomes. The study also addresses challenges in implementing CL and provides practical recommendations for educators and policymakers in Lebanon and internationally.

*Keywords:* cooperative learning, collaborative activities, academic performance, student behavior, Lebanese private schools

## **Introduction**

The rising globalization has led to rising local diversity, along with the need for interdependence. In such an environment, interpersonal skills and cooperation skills are vital for survival. Therefore, cooperative learning in classrooms can play a significant role. It is a classroom approach where the teacher allows students to work in small groups to achieve their learning outcomes and goals while acquiring the support and guidance of the teacher (Pan et al., 2023). A study by Chen (2021) also revealed that cooperative learning can serve as a tool for the development of interpersonal and cooperation skills that allow students to be functional in today's challenging and diverse local and global environments. Despite its benefits, it is not widely adopted in many countries due to a lack of awareness regarding its benefits and implementations. A recent study by Syamsi (2024) provided a bibliometric analysis of cooperative learning. The author conducted a comprehensive study by drawing samples from 4367 peer-reviewed articles in the Scopus database. The results showed that cooperative learning studies have been rising in recent years, and the majority of publications are from the United States, with a lack of contributions from Asian or Middle Eastern countries. The author further revealed that there is an inconsistency in the study, and most studies are focused on explaining the

concept of cooperative learning, ignoring its application in different classrooms or its impact on students and their academic outcomes.

### **Problem Statement**

In Lebanon, the focus of the majority of instructors is on the content as they prepare students for the official exams in a limited time frame. Thus, the instructors tend to ignore students' motivations, needs, and characteristics of learning. It is noticeable that the majority of schools in Lebanon utilize lecturing as the main mode of teaching and tend to ignore deep learning methods such as cooperative learning. The literature to support the adoption of cooperative learning in Lebanese schools is limited. A study by Mirza and Halabi (2021) was performed in Lebanon to view the perceptions of teachers regarding cooperative learning. Results suggested that teachers had a positive experience and recommended it for other classes in Lebanon. Another study by Awada and Gutierrez-Colon (2019) also revealed that in Lebanon, using cooperative learning through blog instruction was effective and helped to reduce intercultural communication apprehension. However, further review of the literature revealed a lack of studies to explain the effect of the learning method on students' achievement and behavior. There is a lack of studies performed in private institutions in Lebanon and limited evidence to suggest its implementation, frequency, and appropriate tools and activities. To promote the adoption of cooperative learning techniques in the classroom, further studies on the approach are essential. Thus, to fill this gap in the literature, the present study is conducted. The purpose of the study is to examine how cooperative learning is implemented in private schools in Lebanon and discuss the impact of such implementation on student behavior and their academic outcomes.

### **Significance of the Study**

There is limited evidence regarding the effectiveness of cooperative learning in Middle Eastern classrooms, particularly in Lebanon. This descriptive study explores the frequency and manner in which CL is applied in Lebanese private schools and examines its effectiveness. The study provides valuable insights for educators by identifying appropriate models, structuring group activities, and supporting the evaluation of student learning outcomes. Furthermore, it contributes to policy development by encouraging further empirical research on CL in Lebanon and beyond.

### **Purpose of the Study**

The main purpose of the study is to examine the implementation and effect of cooperative learning on students in private schools in Lebanon. The objectives of the study are the following:

- to determine how teachers implement cooperative learning in Lebanese private schools.
- to analyze the impact of cooperative learning on student behavior in Lebanese private schools.
- to evaluate the effect of cooperation on student performance in private schools across Lebanon.

### **Research Questions**

1. How is cooperative learning implemented in Lebanese private schools?

2. What is the impact of a cooperative learning strategy on student behavior in Lebanese private schools?
3. What is the impact of a cooperative learning strategy on student academic performance?

## Literature Review

### Rise of Cooperative Learning Strategies

Historically, lecture-based instruction was the most dominant teaching approach worldwide (French & Kennedy, 2017). However, as early as the 1960s, scholars began to critique this approach for its limited impact on skill development and attitudinal change (Fakoya et al., 2023). Research further indicates that lecture-based methods are restrictive and less effective in enhancing student behavior and academic performance compared to more interactive strategies (Assem et al., 2023).

Cooperative learning emerged in the 1960s as an alternative. Early studies highlighted its positive outcomes compared with traditional methods. Initially introduced by STEM educators and social psychologists in the United States, it aimed to improve both academic learning and student behavior in K–12 settings (Yang, 2023). Since then, cooperative learning has been adopted worldwide and proven effective across diverse contexts (Anderson et al., 2022). Strategies such as jigsaw, brainstorming, and blog writing were developed to support this approach. Despite widespread use, gaps remain in conceptual clarity and classroom application (Chen et al., 2022).

### Defining Cooperative Learning

Johnson and Johnson (1999) defined cooperative learning as the instructional use of small groups in which students work together to maximize one another's learning (Beigzadeh et al., 2024). More recently, Buchs and Maradan (2021) emphasized its role as a group strategy that fosters democratic participation in classrooms. Chen et al. (2022) identified three forms of cooperative learning: formal, informal, and base groups. Formal cooperative learning involves sustained collaboration over several sessions to achieve shared goals. Informal cooperative learning is short-term, often lasting only a few minutes during lectures, designed to spark engagement. Base groups are long-term, heterogeneous partnerships that provide consistent peer support throughout a course (Triansyah et al., 2023). Each form incorporates distinct techniques and activities highlighted in the literature.

### Cooperative Learning Activities & Procedures

A study by Roy (2024) identified key techniques for cooperative learning, such as jigsaw, think-pair-share, group projects, role assignments, and inquiry-based learning, which effectively promote communication and collaboration. Anand et al. (2021) discussed the round-robin brainstorming strategy, an interactive method that encourages students to develop and refine ideas collaboratively. This technique has been found effective for learning and knowledge transfer across various contexts (Healy et al., 2018).

Adha et al. (2023) explored digital strategies for cooperative learning, particularly during COVID-19, allowing students to engage and collaborate remotely. Suleman and Idayanti

(2024) proposed additional techniques, but noted that most research focuses on Western and some Asian classrooms, with insufficient attention to Middle Eastern schools.

Dzemidzic Kristiansen (2022) pointed out a lack of systematic approaches among teachers in implementing cooperative learning, leading to unsuccessful outcomes. Abramczyk and Jurkowski (2020) reviewed 1,495 Polish language teachers and found that, despite awareness of cooperative learning, it was rarely utilized. Teachers expressed a need for further training in this area. Similar findings in other Western countries show a general lack of awareness and implementation (Raviv et al., 2019; Dzemidzic Kristiansen et al., 2019), with little research focusing on implementation challenges in Middle Eastern nations like Lebanon.

### **Impact of Cooperative Learning on Student Behavior and Academic Performance**

Research on cooperative learning is limited, with few studies examining its effects on student behavior and academic performance. Bores-Garcia et al. (2021) conducted a systematic review of 15 articles, finding that most literature addresses secondary education and focuses primarily on short-term interventions, often using qualitative or mixed methods.

Cecchini et al. (2021) explored cooperative learning strategies in a study of 332 teacher training students. After 10 low-structured sessions, the students were divided into groups that participated in either highly structured or low-structured cooperative learning. Results showed that those in the highly structured sessions experienced higher motivation, content knowledge, responsibility, and improved behavior, highlighting the effectiveness of the method.

In another study, Garcia (2021) examined the jigsaw learning strategy in computer programming through a pre-test and post-test design over 14 weeks. The experimental group showed significant improvements in attitude and self-efficacy compared to the control group, reinforcing effectiveness of the jigsaw technique in teaching.

Van Ryzin et al. (2020) conducted a randomized trial with 1,460 seventh graders to assess the role of cooperative learning in reducing bullying and improving peer relations. The results indicated that cooperative learning significantly decreased bullying and victimization while enhancing student behavior. Other studies also support its positive impact on academic outcomes (Le et al., 2018). However, there is a notable lack of research focused on private schools in Lebanon.

### **Challenges in Implementing Cooperative Learning and Gaps in Research**

Research on the current issue is insufficient in Middle Eastern countries, and recent studies exploring how various procedures, activities, and tools affect student learning outcomes, academic performance, and attitudes are limited. As a result, cooperative learning worldwide remains less popular than traditional teaching approaches. Teachers who implement cooperative learning are often not well-informed about the proper procedures, protocols, or principles (Adha et al., 2023). Additionally, the awareness of the distinction between collaborative learning and cooperative learning is low (Yang, 2023). Loh and Ang (2020) also found that many teachers in Middle Eastern nations rarely use cooperative learning, as they still prefer the lecture method as their primary teaching approach. Therefore, further quantitative studies are necessary to provide clearer

guidance on the implementation, effectiveness, and procedures for using cooperative learning. This study aims to address the existing gap in the literature.

## **Methodology**

### **Research Design**

This study examined the implementation and impact of cooperative learning in Lebanese private schools. A quantitative design was employed, using a survey as the primary data collection tool. The survey method is widely applied in quantitative research because it is less time-consuming and resource-intensive (Kaeedi et al., 2023). It also enables researchers to gather data from relatively large samples through online platforms, facilitating more generalizable findings within a limited timeframe (Tehrani et al., 2021).

### **Population, Sampling & Sampling Method**

The study population consisted of teachers working in private schools in Mount Lebanon. A random sampling technique was applied, resulting in a sample of 36 teachers. This approach was selected because it enhances representativeness and increases the likelihood that the results reflect the broader population.

### **Data Collection Instrument**

Data were collected using a structured survey form provided in the Appendix. The instrument included close-ended questions and one open-ended item to solicit recommendations for improving cooperative learning. The survey was organized into sections addressing respondents' demographics, educational background, years of experience, understanding of cooperative learning, classroom implementation, and perceptions of its impact. The instrument contained 28 items, 6 of which measured respondent profiles and knowledge of cooperative learning, while the remaining items focused on implementation, strategies, tools, and effects on students.

### **Data Collection Procedures**

An online survey was distributed digitally to randomly selected teachers in Lebanese private schools. Prior to data collection, participants were informed of the study's purpose, data use, and procedures for data disposal. Informed consent was obtained electronically. The survey link was shared via email, social media, and other online platforms, and participants were asked to complete it within one week. Responses were recorded and stored in Microsoft Excel for further analysis.

### **Data Analysis**

Quantitative data were analyzed using Microsoft Excel. Graphs and charts were generated to display frequencies and percentages, and descriptive statistics were applied to summarize the findings. These analyses provided the basis for interpreting patterns of cooperative learning implementation and its impact on students.

### **Ethical Considerations**

Ethical compliance was a central priority of this study. According to Fleming and Zegwaard (2018), neglecting ethics in research can cause psychological, physical, or emotional harm and produce unreliable findings. Following Arifin (2018), this study adhered to the principles of informed consent, privacy, confidentiality, fairness, and the avoidance of harm. Participants were informed about the study's objectives, the use of their data, and

its disposal procedures before providing consent. They were assured of their right to withdraw at any time. Confidentiality and anonymity were guaranteed by avoiding disclosure of personal identifiers and storing data in a password-protected file. No participants experienced harm during the research, and fairness, justice, and unbiased procedures were maintained. Finally, the study ensured that results were not fabricated, and plagiarism or misconduct was avoided at all stages.

## Research Findings and Data Analysis

### Descriptive Statistics

The study was performed to examine cooperative learning implementation and its impacts on students' performance and behavior in Lebanese private schools. A total sample of 36 school teachers ~~is was~~ surveyed online and Table 1 shows the demographic description. It is evident from Table 1 that the majority of the respondents were female teachers (86%) from private elementary schools in Lebanon (53%). There were also teachers teaching secondary and intermediate classes, but the ratio is small. The majority of the sample were language teachers (39%), while many were also teaching mathematics (22%), sciences (31%), or other subjects. The teachers were well educated as the majority of the sample were masters, bachelors, or diploma holders. At last, it is also clear that the majority of teachers in the sample had over 8 years of experience (61%).

**Table 1:** Demographic Information about the Study Participants

Item	Description	N	%
Gender	Female	31	86%
	Male	5	14%
Teaching Experience	0-3y	10	28%
	4-7y	4	11%
	8y and above	22	61%
What level do you teach?	Kindergarten	0	0%
	Elementary	19	53%
	Intermediate	5	14%
	Secondary	12	33%
What is your subject category?	Economics	1	3%
	Languages	14	39%
	Mathematics	8	22%
	Sciences	11	31%
	Social Studies	2	6%
	Sociology	0	0%
	IT	0	0%
	Physical Health	0	0%
What is your level of education?	Philosophy	0	0%
	Bachelor degree	11	31%
	Diploma	14	39%
	Master	11	31%
	PHD	0	0%

## Understanding Cooperative Learning

Firstly, the survey was conducted to determine the level of knowledge of respondents regarding the concept of cooperative learning. The respondents were required to select the correct definition of cooperative learning from the provided incorrect definitions. It is evident from Table 2 that out of the 36 respondents, 97% chose the correct definition of cooperative learning, while one chose an incorrect definition, showing that a very low number of teachers were unaware of the concept. Keeping in mind that the population of private teachers is very large, and the sample only includes 36 representatives, it may be assumed that one in 36 teachers of the entire population, does not know cooperative learning. This shows that a large proportion of teachers in Lebanon need training regarding cooperative learning.

**Table 2:** *Understanding of Cooperative Learning among Teachers of Lebanese Private Schools*

Question	Description	N	%
<i>Which statement best describes Cooperative Learning?</i>	Students work independently to achieve individual goals.	0	0%
	Students compete against each other to demonstrate individual mastery.	1	3%
	Students work together in small groups to achieve a common goal and are mutually accountable for learning.	35	97%

## Frequency of Implementing Cooperative Learning in Lebanese Private Schools

Table 3 shows that out of 36 teachers in private schools in Lebanon, most either often use the cooperative learning strategy or always use it. The respondents were also asked how often they manage to engage students in various group assignments or discussions during classroom routines. Most of the teachers reported doing it frequently, while 13 teachers claimed to do it on a regular basis. Thirdly, the teachers were asked about the frequency of using technology in cooperative learning tasks. The majority of teachers always incorporate or often incorporate it. At last, the teachers were asked about the frequency of using the technique in solving issues problem-solving tasks or projects, and the results show that more than a half of the sample (16) often use it less than a half (12) sometimes use it), while 7 always use it. This shows that very few teachers have chosen the option of *rarely* or *never* revealing a high frequency of use.

**Table 3:** *Frequency of Implementation of Cooperative Learning*

Questions	Always	Never	Often	Rarely	Sometimes
How frequently do you implement cooperative learning strategies?	9	1	20	2	4
How often do you engage your students in group tasks or discussions as part of their classroom routines?	13	0	18	3	2
How often do you integrate technology in cooperative learning activities?	17	0	12	2	5

<i>How often do you use cooperative learning to solve problems or complete projects?</i>	7	0	16	1	12
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### Techniques for Using Cooperative Learning in Private Schools of Lebanon

As shown in Table 4, it is evident that among all the activities, the most widely used are problem-solving-based learning (53%), project-based learning (42%), think-pair-share (75%), and group projects (44%). Other activities used by the teachers of Lebanese private schools are inquiry-based learning (33%), jigsaw (39%), role assignments (25%), and round robin (36%). The results reveal that many teachers diversify activities and tools while implementing cooperative learning in Lebanese private schools.

**Table 4:** *Techniques of Cooperative Learning*

<b>Cooperative Learning Strategies</b>	<b>N</b>	<b>%</b>
Jigsaw	14	39%
Think-Pair-Share	27	75%
Group Project	16	44%
Round Robin	13	36%
Role Assignments	9	25%
Project-based Learning	15	42%
Problem-solving- based Learning	19	53%
Inquiry-based Learning	12	33%

### Procedures for Implementing Cooperative Learning Strategy

The teachers were asked to what extent they followed structured procedures of cooperative learning, and the responses are provided in Table 5 (where SA=strongly agree, A=Agree, N=Neutral, D=Disagree, and SD=Strongly Disagree). It is evident that the majority of the teachers either agreed or strongly agreed that they would implement such procedures. The most frequently selected options were: *agree, neutral, or strongly agree*. This shows that the teachers implement the procedures, but they need to improve their consistency

**Table 5:** *Procedures for Implementing Cooperative Learning in Lebanese Private Schools*

<b>Cooperative Learning Procedures</b>	<b>SD</b>	<b>D</b>	<b>N</b>	<b>A</b>	<b>SA</b>
I design and implement activities that encourage group collaboration and interaction among students.	0	2	4	23	7
I use specific tools or resources (e.g., task cards, manipulatives, digital tools) to facilitate cooperative learning activities.	1	2	4	22	7
My cooperative learning activities are designed to align with lesson objectives and curriculum standards.	0	0	4	16	16

I monitor and provide feedback on group processes and individual contributions.	1	2	3	17	13
I follow clear and structured procedures to organize cooperative learning activities in my classroom.	0	1	4	17	14
I assign specific roles to group members to ensure balanced participation during cooperative learning tasks.	0	1	8	17	10
I provide guidance to help students develop teamwork and conflict-resolution skills during cooperative learning activities.	0	0	6	18	12

### Impact of Strategy on Student Academic Performance in Private Schools of Lebanon:

As shown in Table 6, most teachers believe cooperative learning has either a significant or moderate effect on students' understanding and retention of academic knowledge. Specifically, 22 teachers indicated that it significantly improved students' problem-solving and critical thinking skills, while 12 observed some level of improvement. Additionally, 17 teachers reported that this approach had a significant positive impact on academic performance measures, such as test scores and project outcomes, and 19 teachers noted some improvement in this area as well. This evidence suggests that cooperative learning is an effective strategy for fostering positive changes in students' academic performance. Furthermore, very few teachers reported that it had little impact, remained unchanged, or did not lead to any improvement.

**Table 6:** *Impact of Cooperative Learning on the Academic Performance of Lebanese Private Schools*

Questions	Significant Improvement	Some Improvement	Little Improvement	No Improvement
How has cooperative learning impacted your students' understanding and retention of core academic concepts?	24	10	1	1
How do students' problem-solving and critical-thinking skills change after participating in cooperative learning tasks?	22	12	2	0
How does cooperative learning affect students' academic performance (e.g., test scores, project outcomes)?	17	19	0	0

### Impact of Strategy on Student Academic Behavior in Lebanese Private Schools

The results in Table 7 show that a majority of teachers stated that students' increased engagement and motivations (19%), developed better communication and collaboration skills (25%), developed positive attitudes towards learning and teamwork (36%), were able to understand complex concepts (25%), and showed improvement in self-confidence and self-esteem (42%). Thus, it can be concluded that there is a significant and positive

impact of the strategy on the students' academic behavior. The table also shows that agree and strongly agree are the most chosen.

**Table 7:** *Impact of Cooperative Learning on Student Academic Behavior in Lebanese Private School*

<b>Impacts of Cooperative Learning</b>	SD	D	N	A	SA
Students show increased engagement and motivation during cooperative learning activities	0%	0%	8%	72%	19%
My students develop better communication and collaboration skills through cooperative learning.	0%	0%	6%	69%	25%
Cooperative learning has positively influenced students' attitudes toward learning and teamwork	0%	3%	6%	56%	36%
Cooperative learning helps my students understand complex concepts	0%	0%	17%	58%	25%
Cooperative learning helps my students build self-confidence and self-esteem	0%	3%	6%	50%	42%

### **Challenges of Cooperative Learning in Lebanese Private Schools**

In Table 8, it is evident that the most significant challenge of cooperative learning is diverse student abilities. Another issue identified is a lack of time management (36%). Uneven engagement from students is also a key concern (33%), along with resource limitations (31%) that are overlooked in Lebanese private schools. Other issues that are least identified by teachers are a lack of training and awareness of classroom management. However, these two issues are not widely recognized, but they are very significant as they contribute to a lack of time management, uneven engagement, and assessment challenges.

**Table 8:** *Challenges Faced in Cooperative Learning in Lebanese Private Schools*

<b>Challenges of Cooperative Learning</b>	N	%
Uneven engagement	12	33%
Diverse students' abilities	16	44%
Time management	13	36%
Assessment Challenges	9	25%
Resource Limitations	11	31%
Classroom management	5	14%
Lack of training	5	14%

### **Strategies for Improvement of Cooperative Learning**

To improve cooperative learning in private Lebanese schools, the teachers were asked to provide recommendations for improvement. The responses are provided in Appendix A and categorized into three key themes through manual thematic analysis, including 1) improvement of training, tools, and activities in classrooms, 2) enhancing frequency of implementation, and 3) enhancing the overall procedure of cooperative learning.

Some of the respondents provided recommendations on improving training, activities, and resources in the classroom to facilitate cooperative learning. They noted that teachers often lack the necessary resources, training, and tools to effectively implement cooperative learning sessions.

To address this, training can be enhanced through one-on-one peer tutoring, hiring educational specialists to conduct valuable workshops, and establishing annual training programs. Additionally, many respondents emphasized the importance of improving classroom environments by providing resources such as round tables, computers, digital tools, and other materials that support cooperative learning.

Furthermore, some respondents suggested enhancing activities by considering four predominant learning styles: 1) visual, 2) auditory, 3) read/write, and 4) kinesthetic. They proposed that teachers should adopt activities that cater to all these styles to accommodate students with diverse abilities and maximize learning opportunities.

Teachers in Lebanese private schools have suggested several strategies to improve the frequency of cooperative learning in classrooms. They recommend that instead of using cooperative learning activities just once, teachers should integrate them into the curriculum and daily lessons. It is essential to allocate more time for these activities, rather than concentrate solely on delivering brief lectures, which can diminish students' motivation to learn. Many respondents agree that enhancing time management is crucial for facilitating cooperative learning and promoting better student performance.

Improving the implementation of cooperative learning is the most recommended strategy. Respondents believe that teachers are not effectively implementing this approach. There is often a lack of clear goals, expectations, and fair distribution of students within teams. Many teachers struggle to foster teamwork, accountability, and effective communication during activities. Additionally, class sizes can be excessively large or too small, and students frequently receive inadequate instructions. Inappropriate procedures and methods of execution have lowered effectiveness of the strategies. Therefore, it is recommended that teachers carefully plan cooperative learning activities to maximize student engagement, avoid conflicts, and ensure smooth execution within the available time and resources, ultimately enhancing the effectiveness.

Table 9 illustrates the correlation between the frequency of using cooperative learning, the procedures followed, and their impact on students. The data reveals that both the frequency of cooperative learning activities (0.63) and the procedures used (0.68) have a significant and strong impact on students' academic performance. When teachers increase the use of cooperative learning activities and closely follow established procedures, they observe improvement in students' academic results.

Additionally, student behavior is significantly and positively affected by a higher degree of adherence to cooperative learning procedures (0.68). However, the frequency of these activities has a more limited impact on student behavior outcomes. Therefore, it is clear that the respondents' recommendations are practical: enhancing the frequency, procedures, activities, tools, and resources associated with cooperative learning can indeed lead to better outcomes in this approach.

**Table 9:** *Correlation between Frequency, Procedures, and Impact of Cooperative Learning*

<b>Correlation Items</b>	<i>Frequency</i>	<i>Procedures</i>	<i>Academic_ Performance</i>	<i>Student_ ehavior</i>
Frequency	1			
Procedures	0.68	1		
Academic Performance	0.63	0.45	1	
Student Behavior	0.36	0.68	0.36	1

## Discussion

The current examination of cooperative learning implementation and its impact on student outcomes in Lebanese private schools strongly suggests that this pedagogical solution is an effective teaching strategy with potential benefits extending beyond this specific context to public schools and educational settings globally. The findings, indicating enhanced academic performance and positive behavioral changes among students engaged in cooperative learning activities, underscore its value. This aligns with a substantial body of international research that champions cooperative learning as a means to foster student engagement, critical thinking, and collaborative skills (Johnson & Johnson, 1999).

The relatively high frequency of cooperative learning implementation reported by the surveyed teachers in Lebanese private schools, coupled with their adherence to structured procedures and the utilization of varied activities, provides a positive indication of its feasibility within this educational system. This suggests that despite the acknowledged challenges, such as time constraints and curriculum demands, educators in Lebanon recognize and apply the benefits of collaborative learning environments. The perceived positive influence on student motivation, communication skills, and self-confidence further strengthens the argument for the broader adoption of cooperative learning strategies.

Additionally, the alignment of these findings with existing research, such as the work by Cecchini et al. (2021), which demonstrated that structured cooperative learning can lead to improved motivation, enhanced content knowledge, and better classroom behavior, supports the idea that the benefits observed in this study are not exclusive to the context of Lebanese private schools. Similarly, Van Ryzin et al. (2020) found that cooperative learning helps reduce bullying and fosters positive peer relationships and behaviors. The consistent positive outcomes reported across different cultural and educational settings highlight the potential of cooperative learning to address common educational goals, such as improving student understanding, promoting critical thinking, and fostering positive social interactions. Therefore, the insights gained from this study advocate for a wider embrace of cooperative learning as a valuable tool for educators in diverse school environments, both locally in Lebanon and internationally.

## Limitations

The study design has several limitations that deserve consideration when interpreting the findings. The relatively small sample size of 36 teachers, drawn exclusively from private schools in Mount Lebanon, restricts the generalizability of the results. Therefore, the findings may not be representative of the perceptions and practices of teachers in public schools or private school teachers across other regions of Lebanon. The reliance on a

quantitative survey method, while efficient for data collection, provides a snapshot of teacher perceptions and practices at a specific point in time and may not capture the nuances of classroom implementation or the complexities of student experiences. Furthermore, the study did not delve deeply into the specific challenges encountered by teachers in implementing cooperative learning, such as managing diverse student abilities or addressing issues of uneven participation within groups.

## **Recommendations**

Based on the findings and limitations of this study, several recommendations can be made. Policymakers and school administrators should prioritize the provision of ongoing professional development opportunities for teachers, focusing on the principles, diverse strategies, and effective implementation of cooperative learning. These initiatives should include practical workshops, resource sharing, and opportunities for collaborative learning among educators. Schools should also ensure the availability of adequate resources, including flexible classroom layouts, appropriate materials, and technological tools, to facilitate the effective execution of various cooperative learning activities. Integrating cooperative learning as a consistent and integral component of the curriculum, rather than an occasional activity, is also recommended to maximize its potential benefits.

Future research should address the limitations of the present study by employing larger and more representative samples across different regions and types of schools in Lebanon. Longitudinal studies and experimental designs could provide more robust evidence regarding the long-term impact of cooperative learning on student achievement and behavior. Qualitative investigations, such as classroom observations and in-depth interviews with teachers and students, could offer valuable insights into the challenges and facilitators of effective cooperative learning implementation in the Lebanese context. Exploring potential moderating factors, such as subject matter, grade level, and student characteristics, would also enhance our understanding of the conditions under which cooperative learning is most effective.

## **Conclusion**

In conclusion, this study addressed the identified gap in the literature regarding the implementation and impact of cooperative learning in Lebanese private schools, stemming from a noted reliance on traditional teaching methods and a limited understanding of alternative pedagogical approaches. The primary purpose was to examine how cooperative learning is implemented and its effects on student behavior and academic outcomes within this specific educational context. The findings indicated that most surveyed teachers had a basic understanding of cooperative learning, applied various structured methods, and observed positive effects on students' academic performance, including better understanding, problem-solving skills, and overall outcomes. Also, they noted improvements in student behavior, such as increased engagement and enhanced communication and collaboration skills.

The study results offer valuable insights into cooperative learning in Lebanese private schools and its positive impact on student development. Recommendations include ongoing professional development for teachers, adequate resources, and consistent integration of cooperative learning. Future research should aim for larger-scale studies

and deeper qualitative analyses to further explore effective practices in cooperative learning. Overall, this study supports cooperative learning as an effective strategy for enhancing students' academic and social-emotional growth.

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