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## **AN INVESTIGATION OF SAUDI TEACHERS' PERCEPTIONS TOWARDS TRAINING IN COOPERATIVE LEARNING**

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### **Abstract**

*Cooperative Learning (CL) approaches have been widely researched in a number of educational contexts and a various studies indicate the effectiveness of using them to improve learners' social and academic performance when working in small cooperative groups. However, there is still relatively little research on teacher training on CL and teachers perceptions of such training programmes. Investigations on challenges teachers face when start using CL in class or on factors that help overcome such challenges are also relatively few. This paper presents some of the results of a case study conducted in an all-male high school in Saudi Arabia. This article discusses participant-teachers' perceptions towards the training in cooperative learning they received as well as their perceptions of the initial challenges the implementation of CL posed when working in a country where education still relies heavily on lecture style transmission and memorisation. Qualitative data was collected from eight participant-teachers by using semi-structured individual interviews. The data was then submitted to thematic analysis using inductive and deductive analytical approaches. The findings suggest that pre-service and in-service training, also referred to as Continuing Professional Development (CPD), in cooperative learning are important to help teachers change their perceptions towards training as well as their views on classroom roles, responsibility and authority. However, data also shows that are considerable initial*

*challenges that teachers face during the period in which a change from lecture style to CL is taking place. Besides the training programme, it is important to consider the factors that can help to overcome these challenges and difficulties.*

### **Keywords**

Cooperative Learning, Teacher Training, Teachers' Perceptions, Initial Challenges

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## **1. Introduction**

Over the last three decades, Cooperative Learning (CL) approaches have been widely researched and a number of studies indicate the effectiveness of using them to improve learners' social and academic performance when working in small cooperative groups (Cavanagh, 2011; Farzaneh & Nejadansari, 2014; Gillies, 2008; Johnson, Johnson, & Roseth, 2010; Law, 2008). In this paper, the term *cooperative learning* is used to refer to a teaching approach where learners are typically asked to work together in groups in order to accomplish specific goals through activities that are structured, controlled, and directed by the educators. Studies on CL have been conducted in classes in a number of Western countries, such as Australia, England, Mexico, and the USA (Blatchford & Kutnick, 2003). A few studies have also been conducted in the Middle East (Sarkhouh, 2007; Shaiban, 2009) in the hope of developing and reforming educational practices and policies in the region. However, teachers in various contexts still seem to have difficulties and doubts about implementing CL productively (Blatchford & Kutnick, 2003; Johnson & Johnson, 2014). Moreover, previous literature reviews on cooperative learning shows that most empirical research in the field focuses on assessment with only a few studies in the area of attitudes and perceptions (Kyndt et al., 2013). Improving teacher training on CL and its implementation is, however, unlikely to be achieved if research only focuses on achievement. In this article, I argue that it is necessary to consider teachers' perceptions of the training in CL and the initial challenges its implementation poses in order to have a better understanding of how CL can work in classrooms and produce to more desirable results.

## **2. The Context of This Study**

In Saudi Arabia, according to Alhaidari (2006), classrooms rely heavily on lecture style transmission and memorisation. The term *lecture style* is applied here to a teaching approach, which emphasizes the role of the educator where the teacher usually delivers information, explains content, and asks students comprehension questions. In the classroom, students generally work individually and competitively in order to earn rewards. However,

Alsayegh (2007) argues that knowledge-transfer teaching methods and theories are no longer enough to prepare students to face the challenges and changes of an international society or to teach the skills needed for the contemporary labour market. In the last decade of the twentieth century and the first decade of the twenty-first century, the economic systems, as well as socio-cultural contexts, have changed due to a number of factors such as technology, globalisation, and economic competition (Alhadi, 2013). As a result, educators have been advancing new ideas and concepts in the field of education related to the knowledge and the important skills individuals need to learn (Alsayegh, 2007). However, in order to change the education systems in any part of the world, it is essential to re-evaluate the teacher training and education programmes. In addition, the context and the knowledge that is taught, as well as the approaches to teaching and learning, should change (Pellegrino & Hilton, 2012; Alhadi, 2013). Supported by the developments in teaching and learning theories, a change from teacher-centred to student-centred approach could be achieved with consistent teacher training and education programmes focusing on collaborative and cooperative teaching methods.

A number of researchers and Saudi educational authorities have called attention to the importance of implementing new educational practices, such as cooperative learning, instead of continuing employing direct instruction (Alakili, 2011; Alhadi, 2013; Alsaleh, 2003). As a result of such change in perceptions towards education, in-service teacher training, or Continuing Professional Development (CPD), on CL was delivered to teachers working in a high school in Saudi Arabia where this study has taken place. The training programme was provided by the Local Department of Education and based on Johnson and Johnson's model of using cooperative learning (Johnson, Johnson, & Holubec, 2008).

### **3. Cooperative Learning and Teacher Training**

Various attempts have been made to define cooperative learning. Kagan & Kagan (2009) define CL as a general underlying structure applied to group activities and which can be replicated in any classroom situation. Educators (Slavin, 2011; Farzaneh & Nejadansari, 2014) emphasise the group work aspect of cooperative learning and argue that it includes small groups of students with diverse abilities, talents and backgrounds who work together as a team in order to complete tasks, to solve problems, and to attain shared goals. Johnson & Johnson (2014) also argue that in cooperative learning classes students should work together in order to maximize each other's knowledge and achieve common objectives. Learners search for

outcomes that are valuable to all, encourage hard work, and negotiate material with each other in order to help one another understand the task and content.

Johnson & Johnson (2014) propose the adoption of five core principles to make CL effective: 1) *Positive interdependence or group goal*, which occurs when learners effectively work together towards a mutual aim and each student is aware that they can attain their aims if their teammates attain theirs; 2) *Individual accountability*, which happens when the group's success relies on all group participants' individual learning; 3) *Promotive interaction*, which occurs when individuals 'encourage and facilitate each other's efforts to accomplish the group's goals'; 4) *Social skills* which help learners communicate successfully with each other and are required for creating a cooperative environment and productive teamwork; and 5) *Group processing*, which refers to the reflection on how helpful or unhelpful the actions of each member were to achieve the group's goal and which actions should be continued or changed.

However, it must be taken into account that there are significant theoretical and practical differences between cooperative learning and traditional teaching methods (lecture style) such as the one used in the Saudi Arabian educational context. For example, teachers should change their role from lecturer in traditional methods to facilitator in cooperative learning approach (Kagan, 2013). In addition, according to Krol, Janssen, Veerman, & Van der Linden (2004), there is a need for teachers to be able of using the desired cooperative learning instructional behaviours, such as the structuring of positive interdependence and individual accountability, the promotion of social skills, and the evaluation of group processes that is necessary to create a context in which students can cooperate. New teaching behaviours, understanding their new roles, and how they can learn using cooperative learning, probably requires teachers who are new to attend CL training programmes (Hennessey & Dionig, 2013). However, learning new teaching methods and behaviours is a challenging task that demands time, repeated practice, encouragement, feedback and commitment (Sharan, 2010).

According to Fullan (2007), the main obstacles to attain educational change are the lack or no awareness of the need to educational change, and the teachers and educators' lack of important knowledge and skills that enable them to make such educational change. Therefore, when teachers change their current teaching methods to use cooperative learning, they should not only have the knowledge and skills needed but also be willing to change and be aware of the need of changing. Abrami, Poulsen, & Chambers (2004) found that

professional development (training) should be used to promote teachers' belief that they can succeed in implementing innovation in their own context. Therefore, beliefs can play an essential role to determine what teachers do in their classes. Richards (1998, p.66) argues that educators' beliefs are related to "the information, attitudes, values, expectations, theories, and assumptions about teaching and learning that teachers build up over time and bring with them to the classroom". In other words, education, knowledge, culture and experience have an impact on teachers' beliefs and could have considerable influence on their teaching practices (Roehrig & Kruse, 2005). According to Dretske (2006), awareness (knowledge, information and experience) is required to create perceptions and therefore, perceptions without awareness would be impossible. According to Gupta (2006), individuals' experiences can make a rational contribution to their knowledge and their experiences and knowledge are very likely to form their judgments and perceptions.

In order to change the educational process, a change in teaching methods, beliefs and materials is required and this should happen through the personal development process in social contexts (Fullan, 2007). Brody (1998) indicates that educators' beliefs could influence teachers' practice in the class, the choice of instructional methods, the loci of control and sense of authority, teachers' conceptions of their role, the nature of knowing and knowledge and teachers' conceptions in decision-making in teaching. Brody (1998) adds that the systems of beliefs are considered 'deeply-etched patterns' that reflect orientations and directions to guide teaching tasks and create a set of personal constructions to guide an educator in interacting with new views and practices. Hence, different beliefs are likely to lead to different teaching practices (De Hei, Strijbos, Sjoer, & Admiraal, 2015). As a result, teachers' beliefs, knowledge and experiences should be considered in the process of pedagogical change in the class (Mansour, 2008). According to Flavell, Miller, & Miller (2002), new actions and attitudes could show that some different kind of new knowledge construction and thinking is taking place.

In order to change to a cooperative perspective, a shift in sensibility, fundamental assumptions and beliefs about learning and authority is required (Brody & Nagel, 2004). Educators' using of cooperative learning could partly rely on the particular beliefs and knowledge about education they hold, the match between the styles that teachers are using or learning, and their beliefs about students' learning (Brody, 1998). DelliCarpini (2009) found that teaching practice could be influenced by teachers' beliefs and their prior experiences and that if teachers are not exposed to effective models of cooperative learning in their education

programmes, it might be unrealistic to expect them to engage in cooperative learning in their classrooms.

Finkbeiner (2004) claims that the pre-service training programme is important because it gives the trainee-teachers the opportunity to practise and experience cooperative learning methods before they apply the model in school settings. They can discuss effective and less effective techniques before using this new approach. The training programme could have an influence on pre-service students in choosing teaching methods when their turn to teach students in schools arrives. Taspinar (2007) argues that involving cooperative learning structures in pre-service teacher training is considered an ideal means to qualify and encourage prospective teachers to implement this practice appropriately.

According to Herreid (1998), the majority of current teachers have been trained by traditional teaching method (lecture style) and some of these teachers believe that they do not need to use other methods of teaching, especially teachers who are good lecturers. McWey, Henderson, & Piercy (2006, p.253) support Herreid's idea by indicating that "some instructors whose personal and professional training has largely focused on traditional teaching practices may require additional training to implement CL effectively". Therefore, in-service training, or Continuing Professional Development (CPD), is an important way to assist teachers to improve their understanding of new teaching methods and experiences to enhance students' achievement (Guskey, 2003). By continuing professional development we understand the formal and informal learning opportunities provided to staff in order to promote their "professional competence, including knowledge, beliefs, motivation and self-regulatory skills" (Baumert & Kunter, 2006, cited in Richter, Kunter, Klusmann, Lüdtke, & Baumert, 2011, p.116). The first is defined as occurring in structured learning environments, usually organised by institutions and requiring from trainees regular attendance to talks, workshops and activities (Richter et al., 2011). On the other hand, informal CPD learning opportunities are those in which there is no specific structure or schedule and in which staff members collaboratively share their knowledge by having informal conversations, doing peer observation and creating networks and study groups (Richter et al., 2011). Joyce & Showers (2002) have done some extensive work and a review of studies involving CPD and coaching sessions and argue that to be effective CPD needs to include feedback, mentoring and follow-up activities. They also present a model that includes several stages of development: explaining the new approach or idea; demonstrating how it can be done; practising the new

approach; doing evaluation; providing teachers with feedback on their implementation of the new approach; and working with teachers on how to improve their practices (coaching).

Roy (1998) argues that training programmes can be effective and very likely to lead to changes in class behaviour when involving the following components: teachers should understand the theory that undergirds the new practice; teachers should see the new teaching models put into practice by experts; supervised practice should be provided when teachers apply new techniques and receive experts' feedback; and class coaching should be provided. Creating the opportunities for teachers to experience and practice a number of cooperative learning tasks and lessons in varied content areas should be thus the long-term goal of CPD (Krol, Slegers, Veenman, & Voeten, 2008). Adding to this list, Davison, Galbraith, & McQueen (2008) emphasize the importance of leadership and support from the school principle or head-teacher to establish and maintain motivation while implementing CPD and cooperative learning in schools.

However, Abrami et al., (2004) argue that only providing training does not guarantee that changes will happen since some teachers may implement the new ideas enthusiastically, others may never try them, and others even may return to their traditional teaching over a period of time. Sharan (2010, p.303) argues that although there is an effort to provide CL formal training programmes, CL is 'often abandoned' and the cooperative classroom practices 'significantly reduced' over a period of time. DelliCarpini (2009, p.49) also calls attention to the 'gap between teachers' theoretical knowledge and their classroom practices' and that education programmes should support teachers to implement CL effectively. Finkbeiner (2004) highlights that the trainers in a cooperative learning programme should consider all variables that can enhance the transfer of CL into classroom practice and help teachers be aware of the opportunities for application and adaptation so that we make sure teachers practise it in different contexts and give them support for transfer.

Although change can lead to development and improvement, change can also bring up resistance (Fullan, 2007). Stability is considered a strong preference for individuals, while change can lead to moving into unfamiliar area. Some teachers tend to keep using their own methods of teaching as 'comfort zone' and can be difficult to convince them to change or move to another zone (Shannon, 2006). According to Knowles & Linn (2004, p.4), "the definition of resistance is that it is a reaction against change. It becomes evident in the presence of some pressure for change". Resistance can be seen as an attitude where the affective, cognitive, and behavioural components of resistance can influence individuals,

specifically when people are aware that they would be at the heart of an attempt to make change. When individuals think and worry about the aspects of the change in their situation, resistance can be considered a natural reaction and normal response to change because change usually includes going from known to unknown (Bovey & Hede, 2001).

There are some reasons that can lead to fear of change and resistance. Firstly, according to Yılmaz & Kılıçoğlu (2013), when individuals receive insufficient information regarding the nature of change and they do not acknowledge the need for change, they may feel anxious and fearful about the change implications. They add that the level of the resistance can increase when individuals feel a loss of control in their work. Extra workload that is usually connected with the change and a decrease in the degree of self-interest can be other causes for resistance to change (Trader-Leigh, 2002). In addition, old ideas and the years of practice are considered further causes of resistance. According to Elliott & Tudge (2007), teachers who have participated in a certain process for many years are expected to be more resistant to change. Also, previous experiences of change can affect individuals' attitudes toward change (Hargreaves & Shirley, 2009). Therefore, unhappy previous experiences of change may lead to resistance to change. Finally, the process of change is usually stressful and uncomfortable due to the efforts and time that need to be spent in order to make the innovations take place (Yılmaz & Kılıçoğlu, 2013).

#### **4. Research Participants and Methodology**

The current study was conducted in one state male high school in a city in Saudi Arabia. This specific school was chosen because the Local Department of Education has systematically conducted observation and school inspections for one year and a half in order to support teacher who have been using cooperative learning with their student.

Six teachers (T1, T2, T3, T4, T5 and T6) attended the full in-service formal teacher training on using cooperative learning that was provided by Local Department of Education, based on Johnson and Johnson's model of using cooperative learning (Johnson et al., 2008). Another teacher (T7) attended some days of the training programme and received some classroom visits from the trainer and the expert teachers on using cooperative learning because he was studying Master degree. Another participant (T8) did not attend the training programme at all and did not receive any visits from the trainer and the expert teachers. Instead, T8 heard about cooperative learning from his colleagues who had attended the CL training programme. He took advantage of some break times at school and discussed with his colleagues some issues about cooperative learning. When T8 encountered a difficult issue, he

usually asked his experienced colleagues or someone who had attended the CL training programme. Seven teachers have been using cooperative learning for approximately one and half years with the exception of T8 who has been using cooperative learning for only one year. At the time of the data collection, the participant-teachers working with Years 10, 11 or 12 and teaching different subjects were selected to participate in this study (Table 1), representing approximately 40% of the total number of teachers in the school. Although the participants taught different grades with different classes, one class from each grade was selected for this study.

**Table 1: Overview of participant-teachers using CL**

<b>The teacher</b>	<b>The subject taught</b>	<b>Lessons attended</b>	<b>Teaching experience</b>	<b>Age</b>	<b>Number of lessons per week</b>	<b>Teacher's degree</b>
T1	English Language	Year 12	7 years	31	20	Bachelor
T2	Mathematics	Year 12	6 years	30	22	Bachelor
T3	Chemistry	Year 12	13 years	37	22	Bachelor
T4	Chemistry	Year 11	16 years	40	22	Bachelor
T5	Mathematics	Year 11	7 years	30	21	Bachelor
T6	Biology	Year 10	15 years	39	20	Bachelor
T7	Arabic Language	Year 10	13 years	37	23	Bachelor
T8	Mathematics	Year 10	7 years	32	21	Bachelor

All information provided in this article was collected through individual interviews which took place in September, 2015. Although the teachers were interviewed twice, before and after the classroom observations, only the answers collected for the first interview are discussed in this article because they are related to teachers' perceptions towards CL training and initial implementation challenges.

Qualitative data collected from semi-structured interviews with teachers were submitted to thematic analysis (Bryman, 2016). The data was first submitted to deductive analysis considering the research question and the interview questions for the pre-coded main themes based on Johnson and Johnson's Five Principles of Cooperative Learning (Johnson et al., 2008). The remaining data was then submitted to inductive analysis in order to cover other emerging themes. The whole analytical processes resulted in the creation of various themes and sub-themes among, which were *perceptions of teacher training, perceptions of*

*classroom roles, responsibility and authority, perceptions of initial challenges and factors that help overcome challenges and difficulties.* These themes are the most relevant to an understanding of the issues discussed in this paper.

## **5. Findings**

### **5.1 Perceptions of Teacher Training**

When asked about their perceptions about the teacher training they had received before the CL training discussed in this article, interviewees all focused their answers on the kind of teaching method they were trained to use. They all indicated that the teaching method that they mainly relied on before attending the training programme was the lecturing method. T5 mentioned that he used lecturing because he “had no idea about another teaching method”. When the teachers were asked about the reasons behind that, they pointed at the lack of information and insufficiency of both pre-service training and continuing professional development (CPD) training on cooperative learning before attending the CL training programme. In contrast, other four teachers said that they did not study the teaching methodology at the university. Moreover, according to the participants, in-service training (formal CPD) that had been previously provided by the Local Department of Education was not beneficial. T3 and T5 claimed that generally the content of in-service training did not focus on teaching methods, such as cooperative learning, but tended to concentrate on theoretical aspects of teaching more than practical ones which, in their opinion, tends to make these kinds of programmes less useful.

In contrast, all participant-teachers reflected positively on the CL training programme they received. They indicated that they benefited from new information and skills and that they learned through formal CPD in different ways. Both T1 and T7 pointed out that the training programme provided them the information and knowledge that they needed to implement cooperative learning giving them “information and proper understanding of the main factors of cooperative learning such as teaching students social skills.” In addition, T5 argued that the training programme changed his beliefs regarding his previous concept of cooperative learning. He said that before attending the CL training, he “thought cooperative learning was only about setting group work”. The CL training seems to have changed his perspective and given him a “clear idea of the concept of cooperative learning and its important factors” especially in relation to how “all students in a group should be connected with each other so they believe that they win together or lose together”.

T2 also seems to have changed his views of CL due to the training. He stated that it changed his beliefs regarding “how students could effectively learn” and added that “CL is not about transferring knowledge to students but how students seek and learn the information by themselves”. Moreover, T6 mentioned that the training programme changed his beliefs regarding the role of students and teachers. He now argues that, “the knowledge should not be transferred to students but students should make an effort.” The data above seems to indicate that the CL in-service formal teacher training received has been crucial to lead to a change in perspective among all the interviewees. This influence happened both at the formal and informal levels since T8 did not attend the training sessions (formal CPD) at all but still seems to have been indirectly affected by the training programme through the collaborative support received from the colleagues who attended the sessions.

The interviews also provided the teachers the chance to express their views regarding the strengths and the weaknesses of the training programme. The main strength pointed by all teachers who attended the training programme agreed on was the practical aspect of the training besides the theoretical one which contrasts with the traditional training they had received before, as mentioned above. One important aspect mentioned by T2 is that while being trained in using CL “the programme instructor applied cooperative learning” with the trainee teachers themselves so they could actually experiment it from the learners’ point of view.

However, six teachers also referred to some weaknesses of the training programme and indicated that time was the main problem for them. T6 commented that running it in the evening was a drawback due to family responsibilities and commitments. Moreover, T7 referred to problems related to external school visits since those were primary schools whereas their teaching context is in secondary education.

## **5.2 Perceptions of Classroom Roles, Responsibility and Authority**

All teachers suggested that their perceptions of the teacher’s role in the class before using cooperative learning was that “the teacher’s responsibility is to explain and present the new information, while the student’s responsibility is passively receive the information and understand it” (T3). Teachers were also seen as the only ones who had authority in the classroom. However, after implementing cooperative learning in the class, all teachers claimed that their perceptions about the teacher’s role and responsibility in the class had been changed. All interviewees described their role as facilitators of students’ learning instead of presenter or lecturer and their main responsibility was to design tasks for students in the

groups, observe and watch their progress as well as evaluate their learning. For instance, T2 explained that, “my role now is to guide and facilitate the students’ learning. I design classroom activities, giving the students the principle role in them. Then, I observe students in the classroom while they cooperatively work on tasks.” In addition, all teachers viewed students’ roles as active participants and they had similar views regarding students’ responsibilities in the groups.

The delegation of some authority to students in the class so that they are in charge of their learning is considered to be an important aspect of cooperative learning. In lecture style, as mentioned above, teachers alone tend to hold authority and they do not allow for students to freely discuss or talk unless they ask students questions. However, in cooperative learning, all teachers claimed that students were responsible for their learning and they were free to discuss and talk with each other in their groups to complete the tasks. Therefore, students held some authority and power. However, one teacher (T8) had different views and he said that cooperative learning creates a noisy environment when “students discuss, explain and interact with each other in their groups” which he argues could “lead to disorder and struggle to keep classroom under control”. He also commented that this can lead to “complaints” from other teachers in next door classrooms where lecture-style lessons are being delivered.

### **5.3 Perceptions of Initial Challenges**

All teachers in the study mentioned initial challenges when they change their teaching methods from lecture style to cooperative learning and might lead to resistance to change. Four teachers indicated that long experience with lecture style was a challenge at the beginning, especially to teachers who “have been using the lecturing method for a long time” (T2). Another challenge mentioned was teachers’ conviction of the benefits of the change. As an example, T2 argued that, “teachers should feel that the traditional lecturing method is not effective and they have the wish to change into a new one. In addition, the teachers should believe that the new method will more beneficial to both teachers and students.”

Extra workload on teachers connected to the plan and the preparation of cooperative learning itself, as new method was another challenge mentioned. Moreover, all participants indicated that the perceptions and attitudes towards CL hold by teachers in the same school who used lecture style negatively affected CL teachers and students who are new to cooperative learning, especially at the beginning since “this causes confusion among students” (T8). In addition, teachers’ fears about delegating responsibility to students to learn on their own as teachers fear students may take control of the class “as it could lead to

disorder” (T4). Interestingly, this teacher’s views (T4) on classroom management in cooperative learning seem to have changed after practising and experiencing it. He then argued that “through cooperative learning, the students are kept busy in the classroom, working on finding solutions to problems, allowing me more time to manage the classroom”.

Finally, lack of clarity of cooperative learning strategies and application was an initial challenge mentioned by T8 - who did not attend the training programme. He argued that, “at the beginning, some of its strategies and methods of application were not clear to me.”

#### **5.4 Factors that help overcome challenges and difficulties**

Although there are considerable challenges and difficulties teachers face to work with CL, there are also positive factors that may assist teachers to use cooperative learning and help them overcome those challenges and difficulties. First of all, six teachers mentioned the direct support they received from the school principle and school administration to use cooperative learning. Another helpful support was from teachers’ colleagues. For instance, T4 said that, “the support and encouragement teachers receive from school administration and the school principal.” T2 pointed out to indirect support received from the school principle when he said “the principal’s support to use cooperative learning gives me motivation to keep using it”. All participants mentioned that discussion and shared views with each other regarding cooperative learning was helpful. For example, T3 argued that, “an environment where issues related to cooperative learning can be discussed encourages me to carry on using this method and support other teachers who do not use it.”

A second important positive and very helpful factor was the teachers’ visits to other schools to observe experienced teachers using CL, especially at the beginning of the process. The follow-up visits by the training instructor were another support factor indicated by seven teachers as they helped “detect any arising problem encountered by trainee teachers and to suggest the best solutions to overcome them” (T5). T5 also commented that the regular follow-up for over a year helped “detect any arising problem encountered by trainee teachers and to suggest the best solutions to overcome them”.

Finally, gradually implementing cooperative learning at the beginning was mentioned as a useful aspect by four teachers. T6 mentioned that, “gradually introducing cooperative learning is useful especially at the beginning; I increased the number of cooperative learning tasks in the classroom lesson by lesson.” Other helpful factors mentioned were good lesson planning and preparation. T1 said that, “challenges can be overcome by proper preparation and good lesson planning in order to have a good cooperative lesson.”

## **6. Conclusion**

One of the most important findings of the present study is the importance of pre-service and in-service training in order to implement cooperative learning. As pointed out by Taspinar (2007) and Finkbeiner (2004), pre-service teachers' experiences affect their later teaching practices, therefore it is important to give novice teachers the information, knowledge and practical experience with CL before they start their teaching career. The findings of this study also indicate that the in-service in cooperative learning based on Johnson and Johnson's model of using cooperative learning (Johnson et al., 2008) received by the participants has had an impact on the teachers' knowledge and classroom practices. They have benefited from this training programme to change their classroom methods from lecturing style to cooperative learning since it provided the knowledge and understanding of CL which enabled them to implement CL in their classes. This is in line with the views of a number of researches who emphasize the importance of in-service training to fill in the gaps of teachers' knowledge and support teachers to implement CL (DelliCarpini, 2009), to change classroom behaviours (Roy, 1998), and to help teachers establish goals, define classroom roles and understand the differences between group work and cooperative learning (Slavin, 2014).

In general, data collected from the teachers indicate that training is a very important aspect for the implementation of CL in their classes because it provides new information and knowledge which affect teachers' beliefs and their practices in the classroom (Dretske, 2006). However, the data show that there are some initial challenges that teachers face when they change from lecture-style to CL. Such factors can be the previous long experience with the lecture method, increased workload, and the level of the teacher's conviction of the benefit of change (Fullan, 2007). Nonetheless, there are factors that can help overcome these challenges, for example, the support from the school principal and colleagues (Davison et al., 2008), visiting experienced teachers in other schools, and the feedback received from trainers (Joyce & Showers, 2002).

Change to CL in traditional lecture style teaching and learning contexts, such as the one investigate in this study, thus require from those interested in implementing the changes attention to the teachers' perceptions and attitudes towards training in CL as well as the creation of systematic support that takes into consideration the difficulties posed by the transition period.

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