Using Cooperative Learning to Develop Language Competence and Social Skills

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Abstract. Present findings prove the effectiveness of CL in producing greater gains in academic and social outcomes. The positive effects of the cooperative learning paradigm are impressive. But despite its widespread recognition and appreciation, CL remains an instructional strategy seldom used in a systematic manner by practitioners in most schools and universities. The following fact encouraged the authors of this study to examine educational opportunities of CL while teaching foreign languages.

The research methodology has been based on humanistic philosophy and cognitive theory related to a constructivism principal which recognizes education as an active process. The study presents both theoretical and practical considerations of CL strategies. The focus is on essential components of CL activities as well as on factors determining the effectiveness of various CL structures. The article analyses the most effective CL techniques being applied in the foreign language classroom disclosing their content and effect on social skills development and foreign language proficiency.

A small empirical experiment carried out at the Lithuanian University of Agriculture while teaching master students proves CL advantages over traditional education.

The article offers the following conclusions: CL is a way of helping students be more successful in university. But CL does more than that; it is also a way to help students prepare for careers and lives in the real world. Even in today's competitive climate, it is hard to imagine something that does not require cooperation, collegiality, and teamwork.

Introduction

In the light of social and economical changes in Lithuania teaching goals had to be reassessed so that they comply with the changed students’ needs. Therefore along with the traditional role of providing learners with basic skills and information universities must help young people develop higher level thinking, creativity and soft skills (interaction, communication, self-management and organization) that are of vital importance in their career advancement. These goals might be successfully accomplished by activating students’ classroom activities. Thus, cooperative learning (CL) as one of the means of active learning might serve as an appropriate and promising strategy helping to increase learning effectiveness and providing students with the skills of collaborating, cooperating, sharing and socializing. Recent findings (Dennee 1993; Evans, Gatewood and Green 1995; Johnson, Johnson and Holubec 1994; Johnson and Johnson 1996; Kagan 1990, 1992; Johnson, Johnson and Smith 1991; Slavin 1991, 1992;) prove the advantages of CL over traditional education. In the research surrounding, however, little is mentioned about teaching cooperatively in university education. The following fact raised the problem of the present research, that is to investigate educational opportunities in university classroom environment while teaching foreign languages.

Research aim is to show that by using a variety of CL structures during foreign language classes various educational goals might be reached.

Research objectives: to analyse literature related to CL; to overview a theoretical background of CL; to present the most successful structures of CL that can be used to acquire language competence as well as social skills, and personal qualities.

Research methodology. The present study refers to the following methodological attitudes:

• Humanistic philosophy and theory of personality, based on a principal that a human being is unique and integral. This theory emphasizes the development of individual’s natural abilities.

• Cognitive theory related to a constructivism principal, i.e. teaching is understood as an active process. Its purpose is not only to give and receive information, but also to stimulate students’ comprehension and activity as well as develop social skills which are necessary for their further career advancement.

Research methods: the analysis of scientific literature, observation, questionnaire research.

Literature Review

Today’s students represent a wide range of academic motivations and abilities, learning styles, and interests. University teachers face the challenge of deciding which instructional methods will maximize students’ learning and success. Erickson (1984), Johnson and Johnson (1991), Slavin (1987, 1991) proved that traditional whole – class instruction was not an effective way for students to develop academically or socially, because such instruction encouraged individualistic and competitive learning that was only good for high-achievers. They also noted that low-achieving students were at a disadvantage in traditional classrooms because they didn’t process the information needed.
to complete tasks successfully. Slavin (1987) contended that in a satisfying learning environment students were intellectually active. They were capable of filtering information, integrating and elaborating on ideas, testing concepts. Harste and Short (1988) also found that strong communities of learners came about when each individual had the freedom to express his / her opinions and was sure that those opinions would be listened to.

According to the above mentioned researchers CL might serve as an alternative for instructional method that can help students become more actively and constructively involved in the learning process.

The idea of CL is not new. Already in the late 1700s, Joseph Lancaster and Andrew Bell brought the idea of cooperative groups to America. In 1806 they opened the Lancastrian school. Because of the diversity of children attending that school, there was a strong emphasis on CL to ensure that these students from such varied cultures and backgrounds were socialized into becoming “Americans”.

Colonel Francis Parker, superintendent of the public schools in Quincy, Massachusetts (1875-1890) was perhaps the most well known advocate of CL in the schools.

“He viewed mutual responsibility as a great, central principle of democracy. He was convinced that students would fully develop their capacities only if shared learning was encouraged and competition was eliminated as the main motive of school tasks” (Johnson and Johnson 1991, p. 19).

During the early 1900s, scientists began to investigate the effects that various types of conditions, cooperative including, have on human behaviour (Deutsch 1949). In the late 1940s, Morton Deutsch (1949) developed a theory of social interdependence in which he noted that interdependence could be either positive (cooperation) or negative (competition). During the past twenty-five years, researchers have reported that a cooperative environment has a positive impact on the learning process (Erikson 1984; Johnson and Johnson 1989; Slavin 1987).

Johnson, Manyama, Johnson, Nelson and Skon (1981) proved that CL improved student achievement. A theoretical model based on the work of Piaget has been proposed to explain why CL improves student achievement (Damon 1984). This model suggests that the group discussions that occur during CL achieve the following:

- expose inadequate or inappropriate reasoning, which results in disequilibration that can lead to better understanding;
- motivate individuals to abandon misconcepts and search for more powerful concepts;
- provide a forum that encourages critical thinking;
- lead to constructive controversy, which focuses students’ thinking and increases the use of higher- order cognitive processes;
- encourage students to vocalize ideas, which inevitably improves their performance.

According to this model, the most important element of CL is the fact that students work together in groups in which they are involved in discourse about the course content they are struggling to learn.

A separate model has been proposed from the perspective of the theory of motivation, which attributes the success of group learning to the goal structure of CL (Slavin 1984, 1987, 1988). This model proposes that CL activities, when properly carried out, create a situation in which the only way individual group members can attain their goals is if the group is successful. To meet their own goals, members of the group are forced to help their groupmates do whatever is necessary to succeed. According to this theory, CL encourages students to want their classmates to succeed, in sharp contrast to the situation when individuals compete for grades.

Johnson, Johnson and Holubec (1994) held that cooperative learning activities might be used to teach specific content, ensure active cognitive processing of information, and provide long-term support for various achievers.

When high-, medium-, and low-achieving students are compared, it is the low- and medium-achievers who seem to benefit most from CL (Johnson, Johnson, Roy and Zaidman 1985). Thus, it is not surprising that CL has been found to improve students’ self-esteem (Johnson and Johnson 1979). The performance of the high-achievers is usually the same in both competitive and cooperative learning situations. However, when these students were interviewed they reported feeling more support and encouragement from their peers and the teacher when they work in groups.

Some have argued that CL should be used, even if it had no impact on student achievement (Slavin 1984), because of the way it improves the relationships between males and females (Waring, Johnson, Maruyama and Johnson 1985) and among different ethnic and racial groups (Sharan 1980, Johnson, Johnson, Tiffany and Zaidman 1984).

An equally compelling argument can be made for CL on the basis of the effect it can have on reducing students’ anxiety (Stodolsky 1985) by creating a relaxed, tension-free atmosphere, in which a feeling of mutual trust prevails.

Ames and Murray (1982) also found that students working in cooperative groups experienced the so called ‘process gain’, that is, new solutions and ideas result from the group cooperative effort of sharing and generating information. This type of gain does not occur when students work individually. Johnson and Johnson (1989) noticed another benefit of cooperative groups: the transfer of information goes from the group to the individual. Therefore, individual students are able to demonstrate their mastery even though the discussions and tasks have occurred as a part of a cooperative group effort.

Unfortunately, many university teachers and professors don’t believe in the validity of cooperative education or are not sure that they can ever achieve the skills to run a “cooperative classroom” effectively. Others don’t want to make the effort to change their mentality, methodology and physical surrounding to apply CL approach to the subject curriculum. In part, this arises from the individualism of academe. University professors are accustomed to being masters of their domain, the classroom. Besides, there exist
real institutional constraints that discourage teaming across fields and disciplines. One has to agree that cooperative teaching takes extra time. One spends much time beyond one’s normal class preparation by brainstorming, planning, and negotiating each week’s classroom activities. Besides, teaming requires a highly skilled integration of participants, without which, the quality of classroom activities might suffer. In spite of all the mentioned difficulties and the opposition from “traditional educators”, CL is paving its way. The reason for that is that the world of education, which was once teacher centered, has now become student centered. This means that teachers are no longer the bosses of the classroom, but mentors and instructors. By adopting a cooperative learning paradigm in the classroom, teachers will be empowered to reach not only academic achievement benefits, but also various educational objectives.

A Theoretical Framework of CL

The term CL generally describes instructional techniques or grouping structures in which students are divided into heterogeneous groups to complete instructional activities. Each member of the group contributes to the group project. Although individual members often have different assigned responsibilities, they complete the group activity collectively. An existing interaction among the group members help them to be successful and work together towards the group goal. In addition, the success of the group depends on all members learning the relevant information and concepts taught. According to Johnson, Johnson and Smith (1991) CL has five essential components:

1. Positive Interdependence. Students must believe they are linked with other students in such a way that one cannot succeed unless the other group member also succeeds. If the success of every group member depends on the success of every member the interdependence is created. Under optimal conditions, it necessitates the sharing of resources, the provision of mutual support and encouragement, and acknowledgement of joint successes.

2. Face-to-Face Promotive Interaction. It occurs when individuals encourage and facilitate each group member’s efforts to achieve group goals. Students are expected to explain to each other how to solve problems, discuss with each other the material being explained, and provide each other with help, support, and encouragement.

3. Individual Accountability. The overall objective of cooperative learning group is to help each member become a stronger individual. To ensure that the performance of each student has to be evaluated, feedback to be given both to the individual and to the group. According to Johnson (1991), individual accountability can be promoted by: keeping the size of the group small; giving an individual test to each student; calling on students in the class randomly and asking them to present the group work to the entire class; observing how members of each group interact with other group members to explain new material to the rest of the group; requiring that each student teaches what he or she learned to a fellow group member or to someone from another group.

4. Social Skills. That element involves appropriate use of small-group and interpersonal skills. Instructors should not assume that every student has the necessary social skills to work effectively with other group members. They should teach their students leadership, trust-building, decision-making, communication, and conflict-solving skills just as thoroughly as they would teach academic skills.

5. Group Processing. It is a vital aspect of CL. It requires group members to evaluate their functions and contributions, to the group. GP increases learning dramatically and builds a sense of responsibility as well as helps groups work more effectively.

When these components are incorporated into small groups work, the activities become cooperative learning structures and can make a difference in the students’ academic and social skills development.

The effectiveness of CL depends on:

• Heterogeneity of group members. Research has shown that effective CL groups include relatively equal proportions of males and females, students with diverse socioeconomic backgrounds and academic skills, and students who represent both majority and minority ethnic groups (Dishon and O’Leary 1984; Hilke 1990; Slavin, 1991). Larson and others (1984) has concluded that low-ability students may benefit because they are able to observe strategies of high-ability students. Similarly, high-ability students may learn new strategies by teaching other students in the group. A heterogeneous arrangement may be created with: three of the strongest students paired with three students who were considerably below grade level; three students forming triads. One triad consists of one high-achieving student and two low-achieving students, whereas the other will have two high-achieving students and one low-achieving student; 4 or 5 students consisting of 1 or 2 high-achievers, 2 average achievers and 1 low-achiever. Heterogeneous groups teach life skills that are sometimes more relevant than content material.

• Reward structure. According to Slavin (1984), the success of CL is highly dependent on the underlying incentive or reward structure. There are three general types of reward structures: individual rewards for individual achievement; group rewards for group achievement; group rewards for individual achievement. The third type, which is called an interdependent reward structure, has proven to be most effective (Slavin 1984). When students’ success as individuals is dependent on the success of other group members, students are more likely to work to ensure that peers learn the material.

• The use of an interdependent reward structure circumvents many problems inherent in alternate reward structures. For example, when students receive group rewards for the completion of a group product, there is no way to ensuring that all groups members have learned the material. The academically strongest students may tend to take over the project to obtain a good grade. Similarly, when students are rewarded individually, they have no incentive to help other group members learn the material because their grade is not affected by
anyone else’s performance. According to Johnson and others (1985) under purely cooperative conditions, an individual can attain his / her goal if only the other participants can attain their goals.

- **Task structure.** Two types of task structures can be incorporated into CL. Students may either participate in group study or be assigned specialized individual tasks. With a group-study task structure, all group members work cooperatively to learn material, solve problems, or find answers to questions. In contrast, when students are given specialized tasks, they are responsible for learning a particular section of material independently and then teaching it to the rest of their group. Both tasks structures are regarded more effective than competitive or individualistic methods.

### Classroom Research

Classroom investigation was conducted in the autumn term of 2002 with the intention of revealing the influence of CL on the development of students’ social skills and personal qualities as well as on their language competence. The target participants were 46 master students majoring in economics. The students were grouped to create heterogeneous groups. Group 1 consisted of 17, group 2 of 15, and group 3 of 14 students. The students had English 2 hours a week and stayed together for 12 weeks. The groups were involved in CL activities. The results of the experimental groups were compared with those groups in which lecturers applied traditional instructional methods.

CL is a new activity for the majority of students, therefore, it was important to find out how the students in the group were related to each other. The following facts were observed:

- Group members lacked confidence in themselves as learners.
- The members of the group were territorial and didn’t interact equally with all groupmates.
- Some individuals were competitive and attention-seeking at the expense of others.
- The majority found difficulties in working together productively.
- Some members were reluctant to take the initiative.
- A lot of students had no definite sense of themselves as a group. This proved that many students were not used to working cooperatively.

As the majority of target students have never experienced the formal use of CL, extensive ongoing training in the method was provided stressing the importance of team skills in the workplace. While organizing cooperative activities the following actions were applied:

1. Group membership was determined.
2. Roles were assigned.
3. Responsibilities in a particular role were explained.
4. Social interaction, communication, problem solving skills teaching was provided.
5. Group behaviour was monitored.
6. Feedback and assistance were given.
7. Group progress was evaluated and assignment submitted.
8. A cooperative learning task was assessed.

During classroom activities not only essential cooperative learning strategies (setting the tasks, reminding the students of the principles of cooperation, monitoring the process, giving assistance / feedback, maintaining a standard of accountability) were used, but also more creative techniques were applied. These more complicated cooperative learning structures that had the determinant influence on the students’ foreign language competence as well as on their social skills and personal qualities are pointed out in Table 1 (Appendix 1).

### Discussion of the Results

The target students were introduced to a broad range of CL activities. 87% of students pointed out that they found cooperative learning to be the most satisfying of all the learning activity forms. The reasons of giving preference to CL are shown in Fig. 1. (Appendix 2) The students were allowed to point out as many preferences as they wished.

In the present study both teachers and students attributed academic and social benefits to working in teams. Among 46 students 38 (83%) mentioned that CL helped them improve both verbal and written communication skills. The survey demonstrated that as many as 41 (89%) students claimed to have developed at least some of the following social skills (problem solving, decision taking, conflict handling, negotiating, leading, delegating, listening, presentation making) necessary in their future work environment as well as personal qualities (high degree of motivation, enthusiasm, self confidence, self esteem, ambitiousness, responsibility, creativity). Regarding the worst aspect of CL activities, the most common responses (48%) were related to the occurrence of social conflict such as “arguing” and “not listening”. Conflicts, although they occurred only 10% of the time were consistently task related (arguing about the assignment, “bossing” other group members to a particular task).

Without going into detailed analysis of the assessment the results of this study have proved that the target students obtained academic, social and attitude benefits from the current CL practices.

### Conclusions

1. CL is a helpful tool for organizing and managing classrooms. CL structures tend to be quite flexible in terms of possible applications, and, for the most part, require little additional instructional time and effort. In many cases, they save teachers’ instructional time and maximize student learning.
2. CL serves a variety of purposes in foreign language classrooms, but success depends on careful planning and attention to certain practical suggestions that are mentioned below:

- Appropriate classroom arrangements enhance group work.
1. Regular formation of groups and rotation of members keep motivation high.
2. Creation of rules and a sense of team responsibility ensure smooth implementation.
3. Establishment of trust within a group and in each team is essential.
4. Analysis and evaluation of group processes by team members keep teams reflective and working effectively.

3. CL design allows students to utilize their strongest talents across the curriculum and it also promotes ways of improving their weaknesses.
4. CL is an especially effective method to be used with any problem – solving task because it encourages people to express divergent points of view at the same time helping students become better listeners, speakers, readers, and writers.
5. Students in a CL environment must be tested individually and held accountable for mastering the assigned material, but the main focus should be on the efforts each individual makes to support group progress.

References
mas igalina įgyti kalbinės kompetencijos bei socialinių išgūdžių. Straipsnyje naudojami moksliškės literatūros analizės, stebėjimo ir apklausos metodai. Tyrimo rezultatai leidžia daryti priełądą, kad kooperuotas mokymasis yra veiksminga priemonė siekiant užsibrėžtų akademinių ir edukacinių tikslų, jeigu atliekant skirtinga užduotis grupės narius sieja abipus į priklausomybė bei pasitikėjimas vienas kitu. Todėl tikslina nekeisti grupės narių sudėties ilgesnį laiką, o, studentų pageidavimų, ir visą semestrą. Štai didelę reikšmę gynja tinkamai organizuota vertinimo sistema. Kaip parodę eksperimentas, geriausių rezultatų pasiekia, kuomet yra vertinamas kiekvieno grupės nario individualus indėlis visos grupės įvairuose – sažygyje problemuose mokymus sudarymas, o tai neabejotinai liudija jo pranašumą palengvinti su tradiciniu mokymu.

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### APPENDIX 1

#### Table 1. The most effective CL techniques in the foreign language classroom

<table>
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<tr>
<th>CL Technique</th>
<th>Description</th>
<th>Effect</th>
<th>Developer</th>
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<tr>
<td>Think-Pair-Share</td>
<td>Students thought to themselves for ten / fifteen seconds about a topic being presented. Then they paired with another student, already designated by the teacher, to discuss the topic. The pair then shared their thoughts with the entire class.</td>
<td>• increased total class involvement; • helped students value differences and accept other opinion; • developed cognitive thinking; • reduced anxiety.</td>
<td>Augustine, Gruber, and Hanson, 1989 / 1990.</td>
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<tr>
<td>Number Heads Together</td>
<td>Students were assigned numbers for two weeks or more. Depending on the number of students in a group, a teacher assigned numbers up to three, four, or five. The teacher presented a question / problem. The students discussed and reviewed it with each other of the same number to make sure that everyone knew the answer. The teacher then called out one of the assigned numbers. All the students with this number stood and one of them was asked to give the answer.</td>
<td>• motivated learners to find out the answer of the problem; • ensured greater confidence in each other’s abilities; • helped to become an effective communicator.</td>
<td>Augustine, Gruber, and Hanson, 1989 / 1990.</td>
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<tr>
<td>Group Investigation</td>
<td>The members of the group planned how they would research the topic / problem and who would be assigned what work to do. Cooperative groups were formed according to common interests in a topic. Then the group came together to summarize findings and make a class presentation.</td>
<td>• improved skills in problem solving, conflict resolution, and decision making; • taught delegating, and negotiating; • helped to become more effective communicator.</td>
<td>Sharan, 1980. Sharan, and Sharan 1989 / 1990.</td>
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<tr>
<td>Value Lines</td>
<td>At first students worked individually and then in pairs they clarified their own values and experienced diverse points of view.</td>
<td>• improved communication skills; • developed tolerance.</td>
<td>Kagan, 1992.</td>
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<tr>
<td>Jigsaw</td>
<td>Students were divided into teams (usually four), with each member being given a different segment of the assigned material. Each team member was given time to get acquainted with the material. Then the members of the group joined another group in which the students had the same assignments in order to learn the material and become the team expert. After this was completed, each student returned to his / her original team to fulfill the responsibility of presenting his / her material to the rest of his / her group.</td>
<td>• helped the teacher control the difficulty level; • promoted learner’s social development; • had positive effect on learners self-esteem; • built effective communication and interaction skills.</td>
<td>Johns Hopkins Center</td>
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<tr>
<td>Teams-Games-Tournaments</td>
<td>The team consisted of three members. Students, who won, advance to tougher competition each week. Points were awarded to teams through winning. Therefore, high achieving teams competed against high achieving ones while low achievers competed against low achievers allowing an equal chance to succeed.</td>
<td>• encouraged collaboration; • increased skills in communication; • stimulated critical and creative thinking; • fostered trust.</td>
<td>Slavin, 1991.</td>
</tr>
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### APPENDIX 2

**Fig 1. Students’ responses on the preference of CL (percentage rating)**

- Ensures the overall sense of interdependence and accountability among group members (61)
- Provides opportunities of involving everybody and encouraging everyone's contributions (91)
- Everybody shares the prestige, responsibility and hard work on helping each other (84)
- Involves everyone in making decisions and communicating or negotiating with one and another (96)
- Relieves anxiety and enables to learn a lot from each other (80)
- Enjoys being a member of the team because of the opportunities for lively discussions (50)
- Encourages to think creatively, make decisions, solve problems (87)
- Develops tolerance to each other (58)
- Gives confidence (69)