International Journal of Educational Review

International Journal of Educational Review

Publishes original research both theory and practices in Educational Management; Social Studies Education; Educational Technolgy; Natural Science Education; Guidance and Counseling; Primary Education; Linguistics Education; Early Chilhood Education; and Mathematics Education

International Journal of Educational Review is published by Doctoral Program, Faculty of Teacher Training and Education, Universitas Bengkulu, which disseminates the latest research findings from educational scientists in many fields of education. More detail, it focuses on publishing original research of educational management, social studies education, educational technology, natural science education, guidance and counseling, elementary education, linguistics education, early childhood education and mathematics education. It is a biannual journal issued on January and July. The editors welcome submissions of papers describing recent theoretical and experimental research related to (1) theoretical articles; (2) empirical studies; (3) practice-oriented papers; (4) case studies; (5) review of papers, books, and resources.

Content

Sustaining Interaction through Group Work in English Foreign Language Classroom

Tahrun
Universitas PGRI Palembang
e-mail: runtah98@yahoo.com

Abstract: The purpose of teaching and learning English as a foreign language in Indonesia is to enable the learners to use English for communication in various contexts. To promote communication in teaching and learning activities, the teachers should be able to initiate interaction. To initiate interaction, the teachers may use questions, by which the teachers should consider the appropriate types of question that match with the students. In addition, the teachers should be able to maintain or sustain the interaction in their teaching and learning context. One of the activities which are effective to sustain interaction in the process of teaching and learning is group work. By using group work, the learners are encouraged to interact in English communicatively. Besides, this method increases students' motivation in learning. This is as the effect of learning climate which offers freedom for the students to express their ideas, feeling or criticism freely in front of their group's members. In addition, group work promotes students' learning responsibility and autonomy. Each member of the groups must be responsible to achieve their common goal. Considering those ideas, group work can be one of the effective methods to sustain interaction in the EFL classroom.

Keywords: Sustaining; Interaction; Group Work

1. Introduction

The main target of teaching and learning English as a foreign language in Indonesian context is to enable the students to communicate using English in various contexts. To meet this target, the teaching of English as a foreign language should encourage the students to interact using English as their target language. Hall and Verplaetse (2014) state that meaningful learning does indeed come from interaction and the focus of classroom interaction is on ways of providing opportunities for the students to interact (Richard-Amanto and Patricia A, 1998). Considering this idea, it is very crucial for the teachers to implement an effective way or method to promote interaction in EFL classroom. Unfortunately, the teachers of English often find that the students have difficulties to sustain interaction, and even to initiate it in the process of teaching and learning. Sustaining interaction in English as a Foreign Language (EFL) classroom is crucial to make the interaction take place.

One of the effective ways to sustain interaction in EFL classroom is group work. According to Springer et al., (1999), the students who participated in various types of small-group learning had greater academic achievement and showed more favorable attitudes towards learning than those who did not participate in small-group. In addition, Kuh et al. (2007) state that group work learning could promote student engagement and academic achievement, and increase learning motivation. Furthermore, Johnson et al., (2014) state that group work promotes critical thinking, interaction, and skills in decision-making. That evidence indicates that group work is an effective method to be implemented in the EFL classroom.

The key to communication is interaction and group work is the way to create the interaction itself to take place. This paper is delivered to present the nature of group work, the forms or techniques of group

work, its advantages and drawbacks, and how to implement group work as a method of instruction.

2. The Nature of Group Work

Group work is developed on the basis of constructivism principle. The idea underpinning this principle is that individuals learn through building their own knowledge, connecting new ideas and experiences to existing knowledge and experiences to form new understanding (Bransford et al., 1999). This learning takes place by means of the cognitive process and social activities performed by interaction among the members of the group. In this group, there is interdependence among the members of the group. This interaction tends to motivate the members of the group to achieve their learning common goal.

Based on this idea above, group work is also known as collaborative learning since it requires the students to work collaboratively in the teaching and learning process. The students work in teams or groups consisting of several individual differences. This collaborative learning atmosphere can promote not only active learning, critical thinking, interaction and skills in decision-making but also each other's learning success (Johnson et al., 2014). It shows that collaborative learning teaches students diversity, communication and compromise (Harmer, 2001). The students learn how to accept a lot of different ideas, how to communicate them, and how to negotiate them in the teaching and learning activities.

Cooperative learning as it is implemented through group work is designed on the basis of socio-cultural theory. This theory claims that learning may take place when students solve a problem beyond their current developmental level with the support of their teacher or their peers. Therefore, the basis of cooperative learning is a problem to solve, teachers and peers' support and positive group interdependence (Johnson et al., 2014). This idea suggests that interaction among the members of the group happens when there is a problem to solve together. Through problem-solving activities, the students have opportunities to listen to others and to negotiate ideas or meaning. In relation to this idea, Gebhard (2000) states that providing opportunities for the students to express themselves in meaningful ways potentially contributes to creating an interactive classroom.

In pedagogical term, group work is often defined as an instructional method which requires a group of students to work together to complete a task assigned. Harmer (2001) defines group work as more than one person working together to complete a task or assignment. Its goal is to get students to interact with each other and collaborate to complete a unified task. In line with this idea, Brown (2001) states that group work is a generic term covering a variety of techniques in which two or more students are assigned a task that involves collaboration and self-initiated language. Therefore, the main principle in implementing this method is to give more opportunities to the students to interact with others using the target language.

Group work is effective to improve students' academic performance. A study showed that the students who participated in various types of small-group learning had greater academic achievement and exhibited more favorable attitudes towards learning than those who did not participate in small-group learning (Springer, Stance, and Donovan, 1999). This study also showed that group work learning could produce greater academic achievement than both competitive learning and individualistic learning across the studies. One of the factors which influence this great academic achievement is students' involvement and participation in the language classroom. Harmer (2001) states that small groups of around five students provoke greater involvement and participation than larger groups. In addition, this study found that group work could increase the academic performance of students by approximately

one-half of a standard deviation when compared to non-cooperative learning method. Kuh et al. (2007) found that group work learning could promote student engagement and academic achievement and increased students' learning motivation. The increase in learning motivation is closely related to the improvement of students' academic performance. It indicates that motivation and academic achievement are closely related to each other.

In conclusion, group work is developed on the basis of the principle which claims that learning takes place through the cognitive process and socio-cultural activities. Individuals learn new understanding by connecting their knowledge and experiences to the existing ones through interaction among the members of the group. In the process of learning, the students are able to be a speaker and a listener of their group members. Since they can play both as a speaker and a listener, the interaction during the learning process can take place.

3. The Forms of Group Work in EFL Classroom

There are several techniques or forms of group work which can be implemented in the EFL classroom to sustain interaction. Some to mention here are pair work, small–group work, game and role play, simulation, drama, project, and problem-solving. Each form requires different learning tasks and has different learning complexity. Pair work is commonly a group work in which two students are involved to complete the learning task assigned. It is to motivate students in interactive communication for a short period of time within a simple problem. According to Brown (2001: 182), pair work is more appropriate for the tasks which are short, linguistically simple, and quite controlled in terms of the structure of the task. The following learning activities are the examples of pair work: (a) practicing dialogues with a partner (b) simple question and answer exercises (c) performing meaningful substitution drills (d) brainstorming activities, and (e) checking written work with each other.

Another form of group work is small-group work. It is a group of students consisting of six or fewer works together to complete learning tasks assigned. In this kind of learning, the students work together to achieve their common goals. Small-group work is different from pair work. Small-group work has more complex learning task than pair work does. It is a long task, linguistically complex, and not quite controlled in terms of the task structure. The next form of group work is a game. Game is a complex activity containing the rules to follow by the students. The rules are established in order to limit how they have to behave and to interact with others. Game is a really important activity to brain development, to improve concentration and to train students to solve problems appropriately and quickly. Brown (2001) defines a game as an activity that formalizes techniques into a unit that can be stored in some ways.

One of the famous games in EFL classroom is a guessing game called Twenty Questions. It is a spoken group game which encourages deductive reasoning and creativity which is usually played in the classroom(https://en.wikipedia.org/wiki/Twenty_Questions). In traditional practice, one student is chosen to be the answerer. This student is asked to choose a subject or an object secretly, for example, a thing he or she prefers to. He or she does not reveal the selected subject or object to the others. All other students are questioners. These students are asked to take turns one by one asking a Yes-No question. The students who play as an answerer should answer the questions honestly with "Yes" or "No". The game will end if the answer can be guessed correctly by the questioner. The questioner who can guess the correct answer, he or she will win the game and become the answerer for the next round. If there is no correct guess after the 20 questions have been

asked, the answerer will be the winner of the game and he or she will be chosen as the answerer again for the next round. Considering how the game works and students' participation in running the game, it is concluded that a game is one of the appropriate EFL classroom techniques to promote and maintain classroom interaction. Through this technique, student talk will be greater than teacher talk because students have more opportunity to talk than the teacher has. Since then, interaction takes place actively.

Role-play is also a form of group work to maintain interaction in EFL classroom. It is a type of classroom activity where the students play a given character. According to Brown (2001: 183), role-play involves two important aspects covering (a) giving a role to one or more members of a group, and (b) assigning an objective or purpose that participants must accomplish. For example, in pair, the teacher assigns student A as a policeman and student B as a motorcycle driver who breaks traffic regulation. The purpose is for student A to interview student B why he did this. Other members of the groups are assigned to watch for certain language features and gestures as the roles are acted out. After the role has been acted out, the students discuss the result of their observation. A more complex and larger group consisting of more or less 10 students assigned to work through an imaginary situation as a social unit is often called simulation. Each student is assigned an occupation to perform in an imaginary situation, for example, as a policeman, a nurse, an ambulance driver, a patient, and so forth. More formalized form of role-playing or simulation by which a story and its script are planned and prepared by the teacher is called drama. The students are assigned to perform the drama based on the story and the script already prepared for them.

The next technique of group work to sustain interaction projects. Projects can be implemented for all ages. This technique can develop the use of meaningful language both receptive and productive skills. To apply this technique, the teacher may assign students a project on certain themes which is appropriate to the students. For example, the theme of the project is about environmental awareness. In this project, the groups are assigned different tasks to accomplish (Brown, 2001). For example, the teacher assigns group A to create an environmental bulletin board for the rest of the school. Group B is to develop fact sheets. Group C is to make a three-dimensional display. Group D is to put a newsletter for the rest of the school, and group E is to develop a skit. Receptive and productive skills will develop as the students actively participate in the projects.

Last but not least, the teacher may implement a problem-solving group technique to maintain interaction in EFL classroom. Brown (2001) called this technique as problem-solving and decision making. This technique focuses on the group's solution to the specified problem. The problem can be simple, moderate or complex depending on the objective and the level of students. The problem solving is also defined as an instructional presentation in which the problem is the core of discussion to be analyzed and synthesized to find out solution or answer. In line with this idea, Gulo (2002) states that problem-solving is an instructional technique which emphasizes how to solve a certain problem. Thus, problem-solving more focuses on the attention of students' meaningful cognitive processes and challenges than on grammatical or phonological forms. By means of meaningful cognitive processes and challenges, this technique promotes students to make a decision. The ultimate goal is to enable the students to make a decision. That is why; this technique is also called problem-solving and decision-making technique.

4. The Advantages of Group Work

Referring to the principles of successful English language teaching and learning as a foreign or second language and the importance of interaction in the language classroom, group work is identified to have some advantages. These advantages can be summarized as follows.

Firstly, group work generates interactive language. Comparing with traditional English language teaching and learning, group work makes the students use English more interactively than traditional teaching. The use of interactive language promotes interaction among the group's members to achieve their common goal. This cause the students to talk more than their teacher do. In relation to this idea, Harmer (2001) states that group work dramatically increases the amount of talking for individual students and offers a greater chance of different opinions and varied contributions. In traditional EFL classroom, the teacher talks more about grammar and the students do practice on drills. Consequently, the students do not have enough opportunity to communicate using English communicatively. In relation to this idea, Brown (2001) states that with traditional methods, language tends to be restricted to initiation only by the teacher in an artificial setting. In contrast, group work provides an opportunity for the student to initiate interaction, to negotiate to mean and to practice conversational exchanges in various contexts based on the task assigned.

Secondly, group work offers an effective learning climate. This learning atmosphere gives the students freedom to express ideas, feeling, criticism or rejection in their group. By having this opportunity, the students are trained to be critical thinkers in communicating their ideas in the learning process. The affective effect of such teaching and learning climate is the increase in group members' motivation in learning, more specifically in communicating ideas. Its further effect is the increase in interaction among the group members. Certainly, group work becomes a group of students to learn each other to achieve their common goal. The students can learn together and rely on each other. In addition, Flowerdew (1998) states that group work encourage broader skills of cooperation and negotiation and prepares students to evaluate each other's performance both positively and negatively. Definitely, group work makes the students feel safe to express their ideas in their group before they are asked to share their ideas with other groups (Crandall, 1997).

Thirdly, it concerns with students' learning responsibility and autonomy. According to Harmer (2001), group work promotes learner autonomy by allowing the students to make their own decisions in the group without being told what to do by the teacher. Besides, Brown (2001) states that group work consisting of five to six students encourages responsibility and autonomy of student learning since they have equal responsibility for achieving their common objectives of the group. By having common objectives which must be achieved together, students' learning autonomy can develop. They have to work together in their group to gain learning objectives assigned. They have to be initiators in using language in order to communicate their ideas to solve the task assigned. Therefore, group work promotes responsibility and autonomy in learning.

Last but not least, group work promotes individualizing instruction. In fact, there are heterogeneous students in the classroom faced by the teachers. They are different, for example, in language skills, motivation, cognitive styles, learning styles, and learning strategies. Considering these differences, Celce-Murcia (1991:364) states that teachers should individualize ESL instruction so that they teach in the ways in which students learn. According to Brown (2001), the teachers can recognize and capitalize upon other individual differences by careful selection of small groups and by assigning the different learning tasks. By

assigning the different tasks to different groups, the students will learn on the ways of their learning. Besides, students can choose their level of participation more readily (Harmer, 2001).

5. Drawbacks of Group Work

Teaching is a science and an art. It is a science because it requires certain procedures or steps to follow based on the methods selected. It is an art because teaching requires teachers' creativity (Saleh, 1997). Many teachers of English as a foreign language have been familiar with group work but they are often afraid of group work to be implemented in their EFL classroom. Some reasons to mention here are that they usually fell they will lose control because it is likely to be noisy. It is realized that group work has some limitations. Brown (2001: 179-182) identifies five drawbacks or limitations of group work which the teacher should cope with their teaching and learning English as a foreign language.

The first limitation of group work concerns with control of the class the teacher should play with. Control by the teacher becomes a very important issue if the teacher implements the whole class methodology. Group work, by which the teacher divides the class into groups then the task is assigned to the groups to learn by the members of the group makes the teacher decrease his or her control. In this context, the teacher is no longer in control of the class. However, the teacher still plays his or her roles as facilitator, director, manager, and resource. Through these roles, the teacher must be able to orchestrate successful small group work in his or her teaching context.

The second issue of group work limitation is related to the use of student native language in the process of teaching and learning. It is a fact that English in Indonesia is taught as a foreign language. It is the first foreign language which is taught as a compulsory subject starting from the junior until university student. As a foreign language, English is not used as a means of communication in a formal context, such as in school staff meeting or speech delivery by school authority even as a medium of instruction in a classroom context. Therefore, it is quite possible that the students use their native language in the English classroom. The teacher should remind the students that in the learning process, they can try out the English language without feeling that their whole class members and the teacher are not watching and criticizing.

The third excuse of group work concerns with students' error reinforcement. In large classes, the teacher has limited opportunity to correct errors in using language made by the students. Usually, the students will simply reinforce each other's errors. In the small group where the students interact with the group members, the teacher possibly has a lot of opportunities to correct students' errors. If the teacher makes use of this chance, there will be a lot of correction suggested to the students in learning processes. Unfortunately, correction on speech errors in the classroom context does have not any significant effect on student performance (Long and Porter, 1985). What the teacher should do is to organize the group well because well-managed group work may encourage spontaneous peer feedback on the errors within the small group itself.

The fourth drawback is related to teacher monitoring circulation to the groups. The effective teacher will monitor, circulate among the groups, and listen to students of every group, offer suggestions and criticisms to the groups. Of course, it is hard for the teacher to monitor all the groups at once. It is the case because there are more or less six to eight groups consisting of five to six students of each in the classroom.

The fifth limitation of group work concerns with students' learning preferences. Group work as described earlier involves having students work together to make the best use of their own and one another's learning. It means that this method requires

the students to be able to work together in a group to achieve their common goal. However, it is factual that there are a lot of students who prefer to be the focus of the teacher's attention rather than working with their peers (Harmer, 2001). Besides, they will learn more if they work independently. These students will maximize their learning if they learn alone. Group work may be frustrating for these students. As a successful manager of group work, the teacher must be aware of this fact. English language teaching and learning is not simply the teaching of how to arrange its words into sentences in isolation. However, it is about how to use English for communication with others whether through oral or written forms. The more the students involved in communication, the more their communicative performance will improve.

6. Implementing Group Work in the EFL Classroom

As it is explained earlier, group work can be an effective way to stimulate students, support student active learning, increase critical-thinking, and develop communicative competence and decision-making skills. To meet these objectives, the teachers should plan group work well. There are four practical steps to carry out successful group work in EFL classroom: (a) selecting appropriate group work techniques, (b) planning group work, (c) monitoring the task, and (d) debriefing (Brown, 2001).

Selecting Appropriate Group Work Techniques, to promote successful group work, the first step the teacher must do is to select an appropriate task, the task that makes the group work run well. As it is described earlier, there are several forms of group work that the teachers may implement in their EFL classroom such as pair work, group work, game, role-play, and so forth. In selecting appropriate group techniques or group work form, the teachers should consider the complexity of learning task, linguistic aspect and the structure of the task. For example, pair work is more appropriate

for the tasks which are short, linguistically simple, and quite controlled in terms of the structure of the task (Brown, 2001: 182).

Planning Group Work is an important part to run the learning activities well. This step includes seven rules as follows. They include: (1) introducing the technique, (2) justifying the technique, (3) modeling, (4) detail instruction, (5) dividing the class into groups, (6) checking for clarification, and (7) setting the task in motion.

Firstly, the teacher introduces the technique. The introduction should be simple and clear. It should include a statement of the ultimate purpose. Roberson and Franchini (2014) state that for group learning to be effective, students need a clear sense that group work is "serving the stated learning goals and disciplinary thinking goals" of the course. The teacher should make sure that the students know the pedagogical purpose of learning outcomes whenever possible. For example, "You are going to Bandung. Now, in groups of five, you are each going to get different transportation schedules (airplane, train, bus, ship, speedboat), and your task is to figure out, as a group, which combination of transportation services will take the least amount of time and finance.

Secondly, the teacher should justify the use of group work for the technique. It is necessary for the teacher to tell the students explicitly the importance of the group work for accomplishing the task assigned. The students are encouraged to work together to achieve their common goal. Thirdly, it is about modeling. This is important to make sure that students exactly know what they are supposed to do, especially when a new task or potentially complex task is assigned. For example, after the students have gotten into their groups, the teacher may show three different transportation schedules on a power point slide show. Then he or she selects four students to simulate a discussion of meshing arrival and departure times. The teacher should guide and help the students when they are simulating the discussion.

Fourthly, the teacher should give students detailed explicit instruction on what they are to do. This specific instruction includes, for example, a restatement of the purpose, rules they are to follow, the time frame and assignment of roles. In this phase, the teacher also establishes how the members of the group should interact with one another, including principles such as respect and active listening. Fifth, it is about dividing the class into groups. The group size will depend on the number of students, the size of the classroom, the variety of voices needed within a group, and the task assigned. Groups of four-five tend to balance the needs for diversity, productivity, active participation, and cohesion (Gross Davis, 1993).To vary group composition and increase diversity within groups, the teacher may randomly assign students to groups by counting off and grouping them according to number.

Sixth is to check for clarification. Before the students get into the groups, it is necessary for the teacher to make sure that all students have understood their assignment clearly. One of the ways to check if the students have understood their task is by asking questions, such as the objective of learning activity, the time to accomplish the task and the like. The last rule is to set the task in motion. This part is a simple one. The teacher may say something to start the activity, for example, "Well, now you are ready. Let's start".

Monitoring the task, the teacher is a facilitator and resource for the students. The teacher facilitates and helps the students during the process of learning. In monitoring the groups, it is important for the teacher to let the students know that the teacher will be available to help and guide them. However, the students do the task on their own. The teacher moves around the groups to get a sense of individuals' and groups' progress.

After all of the groups have completed their tasks, the next classroom activity is debriefing. Debriefing is a report of learning task assigned. This debriefing activity involves two important points: (1) reporting task objectives and (2) establishing effective supports (Brown, 2001). The first point of debriefing is reporting task objectives. It is an activity where the representatives of the groups present the findings of the groups to the class. The teacher should limit the time for each representative of the group to present his or her talk, for example, 5 minutes for each. After the representative has finished the presentation, the whole-class discussion may take place. The second point is establishing effective supports. The phase is the time to get the class back as a whole-class community. In this phase, the students may tell the problem they faced in achieving their objectives. This phase is also the time for the teacher to encourage some whole-class feedback and to remind students that they all are the members of the team for learning. It is also the time for the teacher to give feedback for the next group work task.

7. Conclusion

One of the EFL classroom teachers' responsibilities is to sustain interaction. To meet this, the teachers of English as a foreign language can implement group work. This method is developed on the basis of the principle of cognitive process and social interaction. The theory underpinning this principle is that new understanding is acquired through the cognitive process by means of social interaction. Group work cannot only promote and sustain interaction but also increase academic achievement and motivation. Besides, this method promotes the students to learn from each other. This makes the interaction take place, meaning that the students learn through interaction.

Group work can take many forms in EFL classroom, such as pair work, small-group work, game, role-play, simulation, project and problem-solving. Each form has its own learning task complexity including language use. Therefore, well-planned group work must be prepared. Well-Planned group

work is conducted through four practical stages: (1) selecting appropriate form or technique of group work, (1) planning group work selected, (3) monitoring the task, and (4) debriefing or reporting the task. These practical steps should be followed to run the teaching and learning well.

Acknowledgement

References

Bransford, J.D., Brown, A.L., and Cocking, R.R. (Eds.) (1999). *How people learn: Brain, Mind, Experience, and School*. Washington, D.C.: National Academy Press.

Brown, H. Douglas. (2001). *Teaching by Principles: An Interactive Approach to Language Pedagogy*. White Plaint: NY. Addison Wesley Longman, Inc.

Celce-Murcia, Marianne. (1991). *Teaching English as a Second or Foreign Language, 2nd Edition.* USA: Heinle& Publishers, a division of Wadsworth, Inc.

Crandall, Jo Ann. (1997). "Cooperative Language Learning and Affective Factors". In Arnold, Jane (Ed.). (1997). *Affective Factors in Language Learning*. Cambridge: CUP.

Flowerdew, L. (1998). A Cultural Perspective on Groupwork. *ELT Journal*, 4.

Gebhard, Jerry Greer. (2000). *Teaching English as a Foreign or Second Language: A Teacher Self Development and Methodology Guide*. Michigan: The University of Michigan Press.

Gross Davis, B. (1993). *Tools for Teaching.* San Francisco: Jossey-Bass Publishers.

Gulo, W. (2002). *Strategi Belajar Mengajar*. Jakarta: PT. Grasindo.

Hall, Kelly Joan, and Verplaetse, Lorrie Stoops. (2014). *Second and Foreign Language Learning through Classroom Interaction*. New York, NY: Routledge.

Harmer, Jeremy. (2001). *The Practice of English Language Teaching 3rd Ed: Completely Revised and Updated.* Essex, England: Longman, Inc.

Johnson, D. W., Johnson, R. T., & Smith, K. A. (2014). *Cooperative Learning: Improving University Instruction by Basing Practice on Validated Theory*. Journal on Excellence in College Teaching, 25(3&4), 85-118.

Kuh, G.D., Kinzie, J., Buckley, J., Bridges, B., and Hayek, J.C. (2007). *Piecing Together the Student Success Puzzle: Research, Propositions, and Recommendations* (ASHE Higher Education Report, No. 32). San Francisco, CA: Jossey-Bass.

Long, Michel H. and Porter, Patricia. (1985). Group Work, Interlanguage Talk, and Second Language Acquisition. TESOL Quarterly 19:207-28.

Richard-Amato and Patricia A. (1998). *Making It Happen: Interaction in the Second Language Classroom, From Theory to Practice.* New York, NY. Longman Inc.

Roberson, B., & Franchini, B. (2014). Effective task design for the TBL classroom. *Journal on Excellence in College Teaching*, 25(3&4), 275-302.

Saleh, Yuslizal. (1997). *Methodologies of TEFL in Indonesian Contexts*. Palembang: Teacher Training and Education of Swiwijaya University.

Springer, L., Stanne, M. E., & Donovan, S. S. (1999). "Effects of Small-Group Learning on Undergraduates in Science, Mathematics, Engineering, and Technology: A meta-analysis". Review of Educational Research, 96(1), 21-51.

Springer, L., Stanne, M. E., & Donovan, S. S. (2018). *Twenty Questions.* Retrieved May 15, 2018.