

## EFFECT OF COLLABORATIVE LEARNING (FISHBOWL ACTIVITY) ON SOCIAL SKILLS DEVELOPMENT OF SECONDARY SCHOOL STUDENTS

Dr Eid Akbar<sup>1</sup> Dr Noor Muhammad<sup>2</sup> Farkhanda<sup>3</sup>

Subject Specialist, Directorate of Professional Development (DPD) KP, Peshawar

[eidakbar500@gmail.com](mailto:eidakbar500@gmail.com)

Assistant Professor, Northern University Nowshera [noor.muhammad@northern.edu.pk](mailto:noor.muhammad@northern.edu.pk)

M.Phil. Scholar, Northern University Nowshera [farkhanda211988@gmail.com](mailto:farkhanda211988@gmail.com)

### Abstract

*Fish bowl is a collaborative learning technique applied in classrooms where group dynamics (team performance, leadership style, and the interdependence between group members) are important. This technique allows its members for a more profound discussion of any given topic. Group learning (fishbowl activity) also aids in the development of social skills such as communication, presentation, problem-solving, leadership, delegation and organization. Therefore this study was aimed at investigating the effect of collaborative learning approach on the social skills development of secondary school students. For this purpose six sub-scales of social skills were selected and a case-study approach (design) was used to study the development of social skills of the learners. Two main objectives of the study were; (i) To explore the effects of collaborative learning approach (fishbowl) on the social skills development; (ii) To investigate which sub-scale of social skills is more affected through collaborative learning technique (fishbowl). The 281284 secondary school students in Khyber Pukhtunkhwa (a province of Pakistan) constituted the population of this case study. Thirty two students of 9<sup>th</sup> class of Government High School No.1 Nowshera Kalan were taken as sample of the study. The sample students were given treatment as collaborative learning. Data was collected through an observation log. Then the qualitative data was analyzed qualitatively in the form of descriptions. The major finding was; Collaborative learning activity (fishbowl) developed social skills of the students.*

**Keywords:** Collaborative learning; Fishbowl activity; Social Skills Development; Sub-scales of Social Skills.

### Introduction

It is obvious that the new era of education is focusing on making the students able to be more active than the teacher in learning through their own investigative process. But in Pakistan the current position of education is not satisfactory. According to the National Education Census of Pakistan there are about 50,585 villages in the country in which 10,908 villages have no educational institution in it. Literacy rate in Pakistan is 65 percent (Ahmad, 2009, p. 10). Population of 5-16 years old children is 53 million in which half population is out of school (Editorial, The Daily Mashriq, 2014). Enrollment in higher education is 2.9 percent. Drop-out rate is 59 percent before completing secondary education. According to World Bank recommendations every state/country is responsible to spend six percent budget of the GDP but Pakistan could not exceed from 2.7 percent of the GDP. In its neighborhood South Korea spends \$ 130 per student, Malaysia spends \$ 128, and India spends \$ 9 while Pakistan is spending only \$ 3 (Ahmad, 2009; pp. 5-6). Moreover, education system of Pakistan dispossesses the students of their inherent abilities of observation, reflection, critical thinking, questioning, enquiry, curiosity, reasoning, imagination, discovery, experimenting and creativity (Ahmad, 2009; pp. 17-18). It is also obvious that Pakistani education system kills creative and productive faculties of learners and makes them as passive learners rather than active participants (Farooq, 2014).

In these situations, much more responsibility comes on the shoulder of the teachers. Therefore teachers must know different teaching learning techniques and strategies. Collaborative learning approach is one of the modern teaching/learning approaches. It is the sum total of more than 100 teaching learning techniques in which students work on the same task or assignment toward common group-goals. Students are active representatives who share

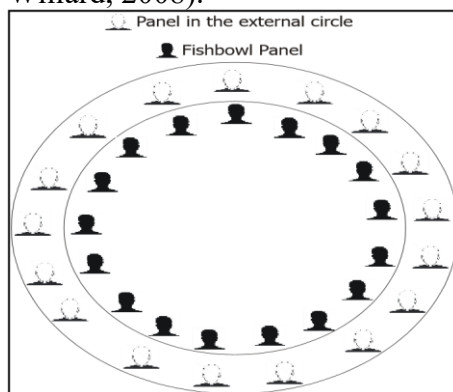
ideas, solve problems, use various information sources and create knowledge together in collaborative learning. In collaborative activities, each member in a group is playing a role to the success of the entire group. Group members work collectively to achieve common learning goals (Lakkala, 2007). Zarei and Gilani (2012) decide that collaborative learning-techniques are not likewise advantageous and that these techniques appear to have uncommon effects yet in the light of numerous studies on collaborative techniques it has been proved that these techniques have better effects than the traditional teaching techniques. Therefore the researcher tried to investigate the effect of Fishbowl Activity in this study.

### **Fishbowl Activity**

It is a strategy used in classrooms and other settings where active groups are important. This technique allows for a richer discussion of any given topic, and it frequently helps build community by focusing attention on the ways that particular group might work together more productively. As students examine a text and attach their responses with others', they model peer writing circle discussions. In this activity two concentric circles are formed. The interior group (fishbowl panel) discusses a topic, while the outside group (panel in the external circle) observes (SI Showcase, 2009). In particular, the first group works on inquiring about other points-of-view, listening to and summarizing ideas, and other communication skills while solving the given problem. The second group focuses their concentration on the vibrant group and make sure they are prepared to discuss how well or poorly the first group worked together to solve the problem. After the given length of time, the class discusses what had and had not come about during the activity (Bruffee, 1999).

### **Steps for setting up fishbowl activity**

Fishbowl is used in many ways in the classroom. A small group of students (as many as half the class) place themselves in an interior circle (fishbowl panel) in the middle of a room. This small group will perform a discussion collectively while the rest of the students (panel in the external circle) observe, take notes, and later throw up questions and produce comments about what they observed. The teacher can be part of either the inner circle (fishbowl) or the outer circle (panel in the external circle). To start on, teachers select students for the fishbowl panel who are absolutely skilled at group discussion or might intentionally choose one or two who are new to it so that the fishbowl doesn't seem too "perfect" for those who are observing (Chris & Willard, 2008).



### **Guidelines for the fishbowl activity**

(a). the teacher must change places of the two circles after one round of a panel is completed. When all the members have gone through both the inside and the outside of the fishbowl circles, the teacher can pose some questions like: What did you learn from each other?

How do you feel you will take what you learned from this task into small-group discussions and into whole-class discussions? **(b)**. the teachers can leave a vacant seat in the fishbowl panel for an outside participant who wants to speak. He/she should come forward to the vacant seat and continue the discussion until someone else from outside the circle wants to join. That person then raps the first person on the shoulder, and they silently change places. **(c)**. the teachers must, for a while, stay out of the fishbowl activity, since their existence can make the discussion less natural. Whether in or out of the group, however, the teacher must give time and be present at the behavior issues that the fishbowl group cannot control, and maintain group etiquettes.

### **Social Skills Development**

Social Skills are non-cognitive features which include some inter-personal behaviors as cooperation, assertion, responsibility, empathy, initiation, group-work, discipline, communication and wait for turn. And they are acceptable manners that develop social interactions, such as “between peers (students) and teachers” (Farrington et al, 2012). Namka (1997) watches socialization as the child's ability to communicate positively to people in society in such a manner that is suitable to his or her age. Social skills are specific and identifiable skills that result in socially competent behavior (Hops, 1983). Such skills facilitate effective social interaction with others (Gresham & Elliott, 1984). Social skills are presently as imperative as academics. Social skills not only facilitate an individual to regulate and take action appropriately to environmental indications but can also provide the person with a means of dealing with in stress-provoking situations and avoiding interpersonal conflict (Matson, 1994). James (2002) argues that Social Skills are the foundation for living with others. And it is the responsibility of the parents, community and school to teach social skills. Because of broken family structure and weak function of community (due to transfer of population, technology and media), the responsibility, therefore, to teach social skills is on the shoulders of school.

### **Method and Procedure**

In order to explore improvement in social skills development of the secondary school students in the result of applying collaborative learning, a structured and direct observation checklist was developed by the researcher. There are so many methods which could measure level of social skills development; these include different types of interviews, socio-metric techniques, direct observation, and rating-scales developed by teachers, parents, and self (Lyon, Naibi, Birkinbine, Albertus, 1996).

If the data is qualitative in nature then the data is collected through discrete qualitative categories (e.g. fair, good, and excellent) any variable can be measured either on a nominal scale, ordinal scale, or on ratio/ interval scale (Ranjit, 1999; P-202). Robson (2002, p-310) is of the view that observation provides a reality check because one may differ from what one says one does.

### **Treatment**

After forming the sample group the treatment started on April 28, 2014 and ended on May 12, 2014. Thus total duration of the experiment was two weeks. In order to teach the sample students, lesson plan was developed according to the collaborative learning strategies and techniques.

In order to teach the sample group through collaborative learning technique “fishbowl”, the teacher, with the help of researcher, divided the sample students into two sub groups i.e Fishbowl panel and Panel in the external circle. There were seventeen students in each group. After placing two subgroups in the internal and external circles, the teacher made them understand about their work and process, function and objectives of their relevant lesson/topic. The teacher did all the work in the presence of the researcher. During that process the researcher

noticed that members of both the groups were feeling excited and were feeling that they were facing something new.

On first day of the activity, all the group members were present. When period of 9<sup>th</sup> grad Pakistan Studies (PS) started, the teacher made fishbowl panel set in the internal circle and the remaining students in the external circle. The teacher instructed the fishbowl panel about their procedure, responsibilities and objectives of the lesson. Then the teacher did so with the group members sitting in the external circle. Keeping in view all the prerequisites of fishbowl technique, the teacher applied all its procedures and activity requirements very well and put a topic (relevant to the unit) in front of the members of the fishbowl panel and invited them to discuss it. Only four students, sitting in the external circle, discussed it. The remaining students were feeling hesitation to participate in discussion, though they repeatedly discussed the information, already presented by the first four students. This discussion was held by the fishbowl panel. At the end of the period, the panel in the external circle was asked to comment on the discussion of fishbowl panel in the next period.

On 2<sup>nd</sup> day of the activity, all the group-members were present. After starting the period, the teacher made them sit in their own circles and invited 17 members of external circle to comment on the discussion, held by the fishbowl panel in the previous period. Only three out of 17 students commented and considered their discussion satisfactory and informative. After that procedure ended, the teacher, standing in the middle of the fishbowl panel, summarized and expressed the theme of the discussion and provided guidance to the members of fishbowl panel. Later on the teacher verified the comments of the external circle and said that it was the responsibility of every group member to participate in the informative discussion. Thus, after detailed discussion, the teacher taught another topic and asked the students in the fishbowl panel for discussing it in the next period.

On third day of the fishbowl activity, thirty three students were present and only one student was absent. The teacher, after starting the Pakistan Studies period, made the students sit in their own circles and raised some questions in front of the fishbowl panel. A student, who had not started the discussion in previous periods, held up his hand for answering the question. The teacher allowed him and thus he started to discuss the topic. And thus members of fishbowl panel discussed the topic one by one. So the teacher invited the students, sitting in external circle, to comment on the discussion of fishbowl panel. Only four students commented and declared the discussion informative. On that day, 16 students out of 17 were present and eight of them had prepared their topic very well. Though the procedure of the discussion was not too much satisfactory because students read out the points, noted on their notebooks, yet the students looked more motivated and socially developed than the other days. The teacher recapitulated the information and discussed the next topic with the students for the next period.

On fourth day of the activity, when the Pakistan Studies period started, the students came well mannered in the school hall and sat in their circles. There were 15 members of fishbowl panel present out of 17 and 13 members of Panel in the external circle present out of 17. When the teacher asked four short questions related to the topic (Two Nation Theory), three students raised up their hands for answering those questions. The teacher asked a student for starting the discussion. He discussed important points from his notebook. Thus every fishbowl member discussed, in which 60% students' points were appropriate and informative but 40% students had few points in number. Then the teacher asked the students in the external circle to comment on the discussion. While commenting, the panel in the external circle said that today the students took part enthusiastically and discussed very well as compared to the discussion in the previous days. Thus the discussion session ended and the teacher announced an important change in the fishbowl activity. The teacher said that students in external circle would make

the fishbowl panel and students in the fishbowl panel would form the panel in the external circle. Then the teacher taught next topic for the next day.

It was, now, fifth day of the activity to be applied. When the period started, students of both the groups came and sat in their circles. Twenty seven students out of thirty four were found present. The teacher, as usual, asked a few questions relevant to the topic (Pakistan Ideology). A student rose up his hand and started to discuss the topic. He spoke written points from his papers. Another student also spoke written points while the remaining students read out the points, written on their note-books. After the discussion ended, the teacher invited the students in the external circle to comment on the discussion. Ten students out of fourteen commented in these words “discussion is informative but the procedure is not adequate”. Fishbowl panel should speak orally not from the textbook”. At the end of the period the teacher announced the topic for the next period (day).

On 6<sup>th</sup> day of the fishbowl activity, there were 16/17 students (fishbowl Panel) and 15/17 students (panel in the external circle). When the teacher asked the questions about the topic (Making of Pakistan), no one replied, therefore, the teacher once again asked the questions. Then a student sought permission to resume discussion. Thus all the students, one by one, discussed the topic. Only five students out of 16 spoke written points, the remaining students spoke, as usual, from their text-books. After the discussion ended, the teacher invited the panel in the external circle for commenting on the discussion. Ten out of 15 students, as a whole, considered the discussion unsatisfactory and less revealing. Then the teacher recapitulated the necessary information and discussed the next topic (Pakistan Resolution, 1940) with the groups for the coming period.

Strength of present student on 7<sup>th</sup> day of the fishbowl activity was 30 and absent students were four. When the period started the teacher was present in the school hall before the students. Students sat in their circles and began to pay attention to their teacher’s questions. From fishbowl panel, a student held up his hand and started discussion. Today’s discussion was started in good way. Three students conducted more informative discussion than the other days. Thus the remaining students discussed the topic one by one. Today only six students discussed their written points and 10 students discussed from their text-books. Students, sitting in the external circle, paid attention to them carefully. When discussion ended, teacher asked the external panel to talk about their discussion. Eleven students commented that discussion was informative and satisfactory. When the teacher asked a few questions, fishbowl panel provided more information than the students, sitting in the external circle. And thus the teacher announced that treatment was over.

**4.2. Data Analysis:** Gay, (2009; pp 447-449) is of the view that non-numerical data, especially collected through observation, is not easy to be analyzed and interpreted. It requires the researcher to know and to understand this non-numerical data. Gay also describes some steps, involved in the process of qualitative data analysis; reading the data, describing the data, classifying the data, and interpreting the data. Qualitative data analysis involves the process of organizing, accounting for (explaining something by relating different circumstances), and exploring the data (Louis, Lawrence, and Keith, 2007; p-461).

The researcher, in this study, analyzed the qualitative data through “typological analysis” method. LeCompte and Preissle (1993, p-257) say that “it is essentially a classificatory process wherein data are put into groups, subsets or categories on the basis of some clear criterion.

## 5. Findings and Results

**5.1. Fishbowl Panel:** On first day of fishbowl activity, sub-scales of social skills; group-work, cooperation, discipline, initiation, and communication were observed as “fair”. On second day, group-work, co-operation, and discipline were noted as “Fair”, and the next three sub-scales of

social skills; initiation, communication and wait-for-turn were observed as “Good”. On the third day of the activity, group-work, co-operation, discipline, initiation and communication were found as “good” while wait-for-turn was found as “excellent”. On fourth day, group-work, co-operation and communication were observed as “good” while discipline, initiation and wait-for-turn were observed as “excellent”. On fifth day groupwork, co-operation, discipline, and initiation were detected as “good” while communication and wait-forturn were viewed as “excellent”. On the sixth day, group-work, co-operation, initiation and wait-for-turn were noticed as “excellent” while discipline and communication were seen as “good”. On the seventh (last) day of fishbowl activity, group-work, co-operation, discipline, initiation and wait-for-turn amongst the members of fishbowl panel were surveyed as “excellent” while communication was perceived as “good”.

### 5.2. Panel in the External Circle

Day first: group-work, co-operation, discipline, initiation and communication were inspected as “fair” while wait-for-turn was examined as “good”.

Day 2<sup>nd</sup>: group-work, co-operation, discipline and communication were seen as “fair” while initiation and wait-for-turn were observed as “good”.

Day 3<sup>rd</sup>: group-work, co-operation, and communication were scrutinized as “good” while discipline, initiation and wait-for-turn were detected as “excellent” and only communication was discovered as “fair”.

Day 4<sup>th</sup>: group-work, co-operation, and communication were observed as “good”, discipline, initiation and wait-for-turn were noticed as “excellent” while communication was seen as “fair”.

Day 5<sup>th</sup>: group-work, co-operation and communication were examined as “fair”, discipline and initiation were perceived as “good” while wait-for-turn was viewed as “excellent”.

Day 6<sup>th</sup>: all the social skills’ sub-scales were found as “excellent”.

Day 7<sup>th</sup>: group-work, co-operation, discipline and communication were surveyed as “good” while initiation and wait-for-turn were noted as “excellent”.

Table 1: Percentage of each sub-scale of Social Skills

Social skills	Observation	Excellent %	Social skills	Observation	Excellent %
Group-work	st 1 2-days	14.3	Initiation	st 1 2-days	35.7
	nd 2 2-days	80.4		nd 2 2-days	91.1
	rd 3 3-days	75.8		rd 3 3-days	93.0
Cooperation	st 1 2-days	14.3	Communication	st 1 2-days	7.1
	nd 2 2-days	80.4		nd 2 2-days	62.5
	rd 3 3-days	80.5		rd 3 3-days	92.2

discipline	st 1 2-days	21.5	Wait for turn	st 1 2-days	57.1
	nd 2 2-days	82.1		nd 2 2-days	96.4
	rd 3 3-days	92.2		rd 3 3-days	92.2

**5. Discussion and conclusion:**

With the intention of exploring the effect of collaborative learning approach on social skills development, the researcher analyzed the collected data in description mood. The improvement in six sub-scales of social skills was observed three times during the application of collaborative learning technique (fishbowl). Group-work, for the first time, was observed as 14.3 % excellent, on 2<sup>nd</sup> time 80.4 % and for 3<sup>rd</sup> time 75.8 %. Cooperation, for the 1<sup>st</sup> time, was observed as 14.3 % excellent, on 2<sup>nd</sup> time 80.4 % and on 3<sup>rd</sup> time 80.5 percent. Discipline was observed as 21.5% on 1<sup>st</sup> time, on 2<sup>nd</sup> time it was observed as 82.1%, while on 3<sup>rd</sup> time it was observed as 92.2% excellent. Initiation, for the 1<sup>st</sup> time, was observed as 35.7%, on 2<sup>nd</sup> time 91.1% and on 3<sup>rd</sup> time it was observed as 93 percent excellent. Excellency of communication was found as 7.1% on 1<sup>st</sup> time, on 2<sup>nd</sup> time it was 62.5%, while on the 3<sup>rd</sup> time it was found as 92.2% excellent. The last sub-scale of social skill “wait for turn”, for the first time, was found as 57.1% excellent. On 2<sup>nd</sup> time, it was found as 96.4%, while on 3<sup>rd</sup> time, it was observed as 92.2% excellent. The findings, showed in table, are the clear indications that all the sub-scales of social skills have been improved. Findings, relevant to social skills development, of this study support findings of the other research studies conducted by Taylor (2008), Gokhale (1995), Brown and Duguid (2000), McCrorie (2006), Pettman (1996), Roberta et al (2014). It is also noticeable that the above mentioned researchers are of the view that collaborative learning is the best sources for improving students’ social skills except Taylor (2008) that investigated effect of collaborative learning on social competence.

**6. Recommendations:**

On the basis of analysis process and findings of the study the researcher extracted the following conclusions.

Classroom-based collaborative learning technique was found more effective than traditional learning (lecture/book-reading) method.

Collaborative learning technique was found appropriate, feasible, and practicable for learning Pakistan Studies in ordinary classroom settings. Classroom-based collaborative learning technique played effective role in improving social skills of secondary school students.

**REFERENCES**

Ahmad, S. (2009). *Universal Quality Education: A Challenge to the Whole World*, (3<sup>rd</sup> ed.). Peshawar: Pakistan, Peshawar Medical College.

Brown, J. S., & Duguid, P. (1994). Organizational learning and communities of practice: Toward a unified view of working, learning and innovation. In H. Tsoukas (Ed.), *New thinking in organizational behaviour*: 165-187. London: Sage.

Bruffee, K. A. (1999). *Collaborative Learning: Higher Education, Interdependence, and the Authority of Knowledge*. Second Edition. Baltimore & London: John Hopkins.

- Chris Opitz,, & Willard L. (2008), Bowman Elementary School, Anchorage School District. Used with permission.
- Dewey, J. (1916). *Democracy and education: An introduction to the philosophy of education*. New York: MacMillan. Available online at [http://en.wikisource.org/wiki/Democracy\\_and\\_Education](http://en.wikisource.org/wiki/Democracy_and_Education)
- Editorial, Daily Mashriq. (2014, December 2). *The Mother of Problems*, the Daily Mashriq, pp.
- Farooq, R. A. (2014, December 5). "Killing Students' Creativity", *Taleemi Nishtar*; The Daily Nawa-I-waqt, pp. 15.
- Farrington. C. A. et al (2012), Teaching Adolescents To Become Learners: The role of Noncognitive factors in shaping school performance: A Critical Literature Review. The University of Shicago. Consortium on Shecago School Research.
- Gay, L.R. & Mills, G.E. (2009). *Educational Research: Competencies for Analysis and Application (9<sup>th</sup> ed.)*. New Dehli, India: Student Book Company.
- Gokhale, A. A. (1995). "Collaborative Learning Enhances Critical Thinking" in *Journal of Technology Education*, 7 (1), 22-30.
- Gresham, F.M., & Elliott, S.N. (1984) "Assessment and classification of children's social skills. A review of methods and issues". *School Psychology Review*, 13, 292-301.
- Hops, H. (1983). Children.s social competence and skill: Current research practices and future directions. *Behavior Therapy*, 14, 3-18.
- James, B. T. (2002). *When The Brain Can't Hear*: NY, Atria Books.
- leCompte, M and Preissle, J. (1993). *Ethnography and Qualitative Design in Educational Research (2<sup>nd</sup> ed)*. London. Academic Press.
- Lakkala, M. (2007). The Pedagogical Design of Technology Enhanced Collaborative Learning. <http://www.elearningeuropa.info/files/media/3028.pdf>.
- Louis, C. Lawrence, M and Keith, M. (2007). *Research Methods in Education*. New York. Routledge.
- Lyon, M.A., Albertus, C., Birkinbine, J., & Naibi, J. (1996). A validity study of the Social SkillsRating System-Teacher Version with disabled and nondisabled preschool children. *Perceptual and Motor Skills*, 83, 307-316.
- Matson, J.L. (1994). *Autism in children and adults: Etiology, assessment, and intervention*. Pacific Grove, California: Brooks/Cole Publishing Company.
- McCrorie P (2006) *Teaching and Leading Small Groups*. Association for the Study of Medical Education, Edinburgh.
- Namka, L. (1997). *Social skills and Positive Mental Health*. Retrieved on August 14th 2006 from <http://members.aol.com/AngriesOut/teach4.htm>
- Pettman, J.L. (1996). Making the difference/teaching the international. In David Boud and Nod Miller (eds.) *Working With Experience: Animating Learning*. London & New York: Kogan Page.
- Ranjit Kumar, (1999). *Research Methodology: A step-By-Step Guide for Beginners*. London. SAGE Publications. New Delhi, Thousand Oaks.
- Roberta, K. Thyfault and Fehrman, K. (2014). *Interactive Group Learning in the Legal Writing Classroom: An International Primer on Student Collaboration and Cooperation in large Classrooms*, retrieved on December 11, 2014 from: <http://heinonline.org>
- Robson, C. (2002). *Real World Research (2<sup>nd</sup> ed)*. Oxford: Blackwell.
- Roger, T., & Johnson, W. (1994). *An Overview of Cooperative Learning*. Retrieved January 12, 2012, from: <http://teachers.henrico.k12.va.us/staffdev/>

mcdonald\_j/downloads/21st/comm/BenefitsOfCL/OverviewOfCoopLrng\_Benefits.html.

SI SHOWCASE: *The Basic Collaborative Learning Techniques: Supplemental Instruction*, Iowa State University. Retrieved on 13/03/2013 from [www.dso.iastate.edu/asc/supplemental/SIShowcaseCollaborative.pdf](http://www.dso.iastate.edu/asc/supplemental/SIShowcaseCollaborative.pdf)

Taylor, J. N. (2008). *Social Competence and Collaborative Guided Inquiry Science Activities: Experiences of students with learning disabilities*. Kingston, Ontario, Canada: unpublished PhD thesis, Queen' s University.

Zarei, A. A., Gilani, M. S. (2012). Collaborative techniques In L2 vocabulary learning and reading comprehension, retrieved on December 11, 2014 from [www.get-morebooks.com](http://www.get-morebooks.com) and [www.morebooks.de](http://www.morebooks.de)