Full Length Research Article

IMPLEMENTING COOPERATIVE LEARNING AMONG POST GRADUATE STUDENTS: LECTURERS' REFLECTION

*Lee Jun Choi, Abdul Halim Bin Mohamed and Mohammad Syawal Bin Narawi

School of Education and Modern Languages (SEML), UUM College of Arts and Sciences,
06010 UUM Sintok, Kedah Darul Aman, Malaysia

ABSTRACT

Over the last three decades, one of the pedagogical practices that has attracted much attention to the world of education is cooperative learning approach. While large lecture halls and bell curves generally characterized higher education, we have to accept the fact that there has been an increased in active learning and cooperative learning-based pedagogies in universities across the country. The role of university lecturers is changing. As the Constructivist educational paradigm continues to take hold, it is likely that the higher education will continue to make progress in alignment with this movement. However, under the false notions that cooperative learning is an alternative to, rather than an enhancement of professional lectures, some lecturers might struggle with implementing it or avoid integrating it into their classes. This study reports on the reflection of 12 university lecturers who have implemented cooperative learning in their classes while teaching masters' students for a duration of 14 weeks. Data from the interviews reveal that while the lecturers have positive experience with cooperative learning, a number of them encountered difficulties with implementation of it in their classrooms. As educators often operate under the false assumption that putting adults in groups automatically assumes that they are being cooperative and that they are learning, there were some 'interpersonal' issues identified. Some lecturers commented that it really required a very high commitment on the part of the lecturers if it was to be implemented effectively.

INTRODUCTION

In every institution, academicians are trying to increase the effectiveness of learning through a variety of teaching approaches. Over the last three decades, one of the pedagogical practices that has attracted much attention to the world of education is cooperative learning approach. Cooperative learning has become quite an internationally known area among social researchers (Slavin, 2011). It is considered to be far more effective compared to lecture-based teaching (Tran & Lewis, 2012a; Tran & Lewis, 2012b; Slavin, 2011, Johnson & Johnson, 2009). There are many varieties of cooperative learning such as Teams-Games-Tournaments (TGT), Jigsaw Grouping, Group Investigation (GI), Student Teams Achievement Division (STAD), Learning Together (LT) and Team Accelerated Instruction (TAI). Even though Paulsen and Faust (2008) note that there is still a resistance and hesitation in higher education to transform traditional university classes into cooperative learning environments,

Corresponding author: Lee Jun Choi,
School of Education and Modern Languages (SEML), UUM College of Arts and Sciences, 06010 UUM Sintok, Kedah DarulAman, Malaysia

university lecturers or professors have to accept the fact that it is a must approach to be integrated into their classrooms whether they like it or not. This paper highlights some of university lecturers' reflections while implementing cooperative learning approach into their masters classes. There were twelve lecturers of masters' program involved in this study, teaching different programs and different courses at the masters level. In this study, using cooperative learning approach, most of the lecturers normally involved a few masters' students working together in a group small enough that everyone can participate on a collective task that has been clearly assigned to them. As adult learners, students are expected to carry out their tasks without direct and immediate supervision from their lecturers. As the term "cooperative learning" implies, masters' students are also expected to help each other learn, share ideas and resources, as well as plan cooperatively what and how to study. Using cooperative learning methods, some lecturers had to sit together with their students to discuss or help one another with classroom assignments. Lecturers in this study also used structural approach when they implemented cooperative learning in their classes. Actually, the structural approach to cooperative

learning is based on the creation, analysis and systematic applications of structures or content-free ways of organizing social interactions in the classrooms (Kagan and Kagan, 2009). Structures usually involve a series of steps, with prescribed behavior at each step, for examples, the three-step interviews, think-pair-share (T-P-S) and jigsaw. Cooperative learning is more than just tossing students into a group and telling them to talk together. According to some lecturers involved in this study, their class period sometimes begins with a meeting of the entire class in order to provide an overall perspectives. This may include activities such as presenting new materials, class discussions, posing problems or questions for group discussions, and clarifying directions for the group activities. The class is then divided into small groups, usually between four or five members in one group. Students work together cooperatively in each group to discuss ideas, clarify their understanding, think and reason together, solve problems, make and test conjectures, and so forth. Students actively exchange ideas with one another, and help each other learn the material. The lecturers take an active role, circulating from group to group, providing assistance and encouragement, and asking thought-provoking questions as needed. The main purpose integrating all the cooperative learning approaches is that, students work and learn together actively in small groups to accomplish a common goal in a mutually helpful manner.

Despite the numerous research studies in support of cooperative learning in adult education (Ahles & Contento, 2006; Johnson & Johnson, 2005), this study finds some reasons why some of the lecturers have not really fully adopted cooperative learning approach in order to enhance the effectiveness of their teaching, reduce cognitive overload and improve learning achievements. First, they are more comfortable engaging in the traditional way of delivering the content of the subject to the students with which they are more familiar and comfortable with. Second, there are more efforts and work involved in integrating cooperative learning methods and monitoring groups during teaching and learning process. It takes time to choose and implement appropriate structures and monitor groups so that students will stay on task. Third, they would have to deal with the common cooperative learning problems such 'free riders', 'hitch-hikers' and 'bullies' within groups. Some group members even showed frustration and complained to their lecturers about those who were not pulling their weight during group work or those who wanted to dominate and control the group.

The Effectiveness of Cooperative Learning in Higher Education

As one of the teaching approaches in higher education, cooperative learning as an instructional method in which small groups are used to maximize student learning whereby students work and learn together actively in small groups to accomplish a common goal in a mutually helpful manner. Cooperative learning would require some cooperation in which all members would be held accountable to increase their knowledge upon building knowledge of individual parts (Jolliffe, 2007). As well as increase long-term achievement (Moore, 2008 & Sahin, 2010). Cooperative learning combines active learning and social learning via peer interaction in small groups on academic tasks. According to Johnson, Johnson, and Smith (1998), cooperative learning has five key elements: positive interdependence, face-to-face promotive interaction, individual and group accountability, development of teamwork skills, and group processing. Cooperative learning has shown up well in education research studies designed to test its effectiveness. Research conducted in many different subject areas and various age groups of students has shown positive effects favoring cooperative learning in academic achievement; development of higher-order thinking skills (both critical and creative); knowledge retention; self-esteem and self-confidence as learners; intergroup relations, including friendship across racial and ethical boundaries; social acceptance of mainstreamed students labeled as handicapped or disabled; development of interpersonal skills; and the ability to take the perspective of another person. Works devoted to cooperative learning in higher education include those of Johnson et al. (1991, 2006), Millis and Cottell (1998), Cohen, Brody, and Sapon-Shevin (2004), Kalman (2007), Millis (2010), Cooper and Robinson (2011), Agashe (2012) and various works by Davidson and colleagues in teaching mathematics.

Even with differences in pre-course characteristics and learning advantages, levels of understanding and retention still increased in the settings of cooperative learning (Terenzini *et al*., 2001). For decades, there have been hundreds of studies, which ultimately have come to the same basic conclusion, higher institutions' students learn more, are better able to remember and then transfer their knowledge when taught with the cooperative learning model than other instructional methods (Johnson & Johnson, 2009 & Cooper *et al*., 1990, Goodsell *et al*., 1992). The reasons for this increase are simplistic. Firstly, in a lecture-based university classes, it is estimated that the lecturers speak about 80% of the time. Thus, in a class with 30 students (which is a relatively small number for a university class) each student has less than 30 seconds to speak every hour (Lie, 2008). Research has shown that students learn by doing, thinking critically about concepts and then applying their knowledge to diverse situations with the help of their peers. Using cooperative learning, the university setting helps break the stereotype that students working together are "cheating." Instead, it enables students with the mindset that one must exercise their collaborative skills and work with others to achieve a common goal, constructing knowledge collectively. In addition to promoting social skills, cooperative learning also enhances personal competencies of self-reflection and accurate self-assessment. By working closely with other students or their peers, learners can evaluate their own strengths and weaknesses, utilizing the diversity of the group to accomplish their mutual goals. By considering how well the group can work together, the effectiveness of social skills used as well as the creation of goals for further growth, cooperative learning encourages students to become reflective practitioners and strive for continuous improvement (Williams, 2007).

Purpose of the study

Given the well documented research on the social and academic benefit that students derive from working cooperatively (as mentioned above) and the apparent reluctant of some lecturers to implement this pedagogy in their classrooms or lecture halls, the purpose of this study is to report on the reflections of 12 lecturers who fully implemented cooperative learning approaches in their classrooms/lecture halls while teaching masters' students for one semester. In particular, this study investigates the lecturers' perceptions on how cooperative learning approach could be carried out and

worked out when they actually implemented it and what were the difficulties they experienced.

Participants

All the 12 lecturers who agreed to participate in the interviews were from five different schools in University Utara Malaysia (UUM) - School of Education and Modern Languages, School of Multimedia and Communication, School of Economics, Finance and Banking, School of Applied Psychology, Social Work and Policy and School of Computing. All of them were involved in teaching masters' students taking various programs at Masters level. They also agreed to integrate cooperative learning approach into their teaching and learning process for a duration of 14 face to face teaching and learning sessions with the students. Before the study began, researcher and the co-researchers selected those lecturers who had actually participated in the 'cooperatively learning' workshop organized by UUM in which they had been introduced the basic elements of cooperative learning such as positive interdependence, face-to-face promotive interaction, individual accountability, interpersonal and small group skills and group processing (Johnson & Johnson, 2003). All of them have been integrating cooperative learning approach for quite sometimes (2 to 3 semesters) before being selected for this particular study.

Interviews

All the participating lecturers were interviewed individually by the first and the second authors following the completion of 14 face to face teaching and learning sessions by the end of the semester. The main reason why the interviews were carried out by two authors was because of the time constraint. The authors have to move around to five different schools (even though appointment had been made) to meet all the lecturers involved in this study and at the same time, they were also quite busy with other commitments. The interviews were semi- structured in order to enable each lecturer to elaborate on the three open-ended questions. We were particularly interested in finding out the reality of each lecturers' experiences while implementing cooperative learning in their teaching especially with post-graduate students and how they faced or what did they do if there was any difficulty arise while implementing this approach. Each lecturer was interviewed and their conversations were audio-taped (using a hand-phone) and fully transcribed by a research assistant and by each author. The data (coded and re-coded) were reviewed and revised in order to ensure that the particular categories that we identified were representative of the interview data. It is significant to see how students' learning together is upheld in their classrooms.

Lecturers' Reflection on Cooperative Learning

During the interviews, lecturers' reflections on cooperative learning could be categorized into two categories: experience implementing cooperative learning and challenges faced by lecturers.

Experience Implementing Cooperative Learning

When all the lecturers were asked about what was their experiences when they were implementing cooperative learning in their classes, all of them said that this approach has really given them a positive and new kind of experience that they have never had before. By actually involved in implementing this approach, the lecturers can actually see the positive and encourage good 'learning together' atmosphere in their classrooms. Their students were actively discussing ideas, posing questions, clarifying their understanding on certain concepts, thinking and reasoning together, solving problems and so forth. The comments given below seem to be the most responses given by the lecturers : *"They were really so energetic and actively discussing among themselves as if they had not seen each other for a long time, they even kind of ignoring my existence when I was standing next to their groups observing them"* (Lecturer 5); *"One thing that I really like when using cooperative learning with my masters' students is that, I don't have to talk a lot, they do the talking all the time and I realized that they eventually became more confident"* (Lecturer 2);

"A few years back, when I was teaching masters' students for the same program, most of them were so reluctant to speak in front of the class, very shy and did not dare to speak out their ideas whenever I asked them and I never expected that, that would be happening, because most of them were working adults and they were supposed to be better than any undergraduate students in terms of class involvement. I even felt so boring and unmotivated at that time. But now, after using cooperative learning approach with my masters' students, I feel like I should have practiced this approach long time ago. Seeing my students actively engaged in the learning process is really a wonderful experience to me" (Lecturer 8); *"You know what, my masters' students seemed like still very happy and cheerful even though they literally made mistake"* (Lecturer 4); *"Above all I never expected that I actually smile to myself when I see my old aged students looks happy and enjoy themselves during the learning process. Seeing them becoming so active like pre-school children even though most of them are in their 30s or 40s really amazed me, thanks to cooperative learning"* (lecturer 12); *"If other lecturers are saying that the classroom environment is still the same as before, even though they used cooperative learning in their class, I would dare to say that they are lying"* (lecturer 10); *"To my surprise, some students even told me that how they wish that other lecturers would do/practice the same thing (cooperative learning) in their classes"* (lecturer 1).

Challenges Faced by Lecturers

In terms of challenges or difficulties faced by the lecturers in this study while implementing cooperative learning, their comments were on the issue of preparation and of students socializing. When talked about preparation, the lecturers reported that there was no doubt that in order to have effective, meaningful, interesting, challenging, and encouraging 'cooperative leaning lesson' it really required a very careful preparation: *"Among other things that I had to do were constructing suitable tasks for the students, printing up role, looking for good resources, and planning out as well as writing my lesson. How does that sound? Tiring and challenging? Of course. But it worth it. Believe me"* (Lecturer 11); *"Cooperative learning is not simply dividing students into small group and let them do the discussion or learn on their own. That won't work. You really have to become some sort like the 'director' of a film"* (Lecturer 3); *"There're a lot of inputs required from the lecturers actually and sometimes I even asked ideas from my friends. I must always bear in mind*

that I'm teaching masters' students, some of them even as same age as me. I need to produce a very careful lesson, it's quite tiring sometimes" (Lecturer 2); "If you don't prepare well and do the extra works for you cooperative learning, you will definitely find that somehow something wrong with your lesson, I had gone through that process" (Lecturer 1). "Well, even though there were masters' students, we couldn't assume that they knew what to do with cooperative learning. Surprisingly, most of them needed to be briefed about what cooperative learning was and how they (as students) should go about it. I needed to remind them about the social skill and interpersonal skills that they must have, taking turns, and so on." (Lecturer 6); "I think, before you actually implementing cooperative learning in your class, you'd better exposed and train them or maybe ask them to do role playing on how to go about with cooperative learning the right and ethical ways. Otherwise you will notice 'hitch-hikers' and 'bullies' within groups or those who want to dominate and control the group"(Lecturer 9).Nevertheless, Lecturer 10 noted that he needed to be really committed to using cooperative learning even though she had to accept the fact that it sacrificed a lot of time and energy, but worth it: "Well I've decided that I'm going use this approach throughout the whole coming semester and no more bit and pieces here and there, because now I see or understand the beauty of this learning approach. Yes, it going to be a big challenge for me, one word for that, fighting! " (Lecturer 12)

When the lecturers were asked about how their masters' students socialize among themselves during cooperative learning, their comments included: "Wow, they talked a lot and really so cooperative with each other and sometimes I noticed that they were talking about other things rather than the topic that they were supposed to discuss. Don't give them long or extra time to discuss. Otherwise it will be a problem to stop them. Remember, they are not small children" (Lecturer 3); "Sometimes I don't know what to do when the students were so engaged in their discussion that the class became so noisy, I think I need more training on this matter" (Lecturer 9); " Whenever I utilize a laissez-faire leadership style in my cooperative learning group, I noticed that some students typically act as a constant silent observer and ready to offer ideas or suggestion when needed" (Lecturer 5); "Yes, no doubt that this approach is good, but I can see the students socializing too much and this actually can deteriorate the quality of their group work" (Lecturer 7). Based on the excerpts of the interviews above, social skills, like other skills cannot be develop or improved without careful planning and intentional practice (Optiz, 2008).

Conclusion

This study reports on the reflection of 12 university lecturers who implemented cooperative learning in their classrooms/lecture halls for a duration of 14 face-to-face sessions (3 hours per session) throughout one semester. All the lecturers involved in this study said that they had positive and new kind of experience that they have never had before. By actually involved and engaged in implementing this approach, the lecturers can actually see the positive results of cooperative learning approaches and would encourage learning atmosphere in their classrooms. Even though all the lecturers involved in this study do agree that cooperative learning give benefits to both lecturers and students, they still have to accept the fact that there are still some challenges to be overcome such as

lecturers' preparations of the cooperative learning (which needs a lot of time and high commitment) and some interpersonal issues from the students. Due to the expert nature of higher education, much evidences suggest that many college and university lecturers and professors are still clinging to the notion of expounding knowledge to their students rather than engaging them in discovering such knowledge building and retention through active learning (Ediger, 2001;Pausen& Faust, 2008). Even though it is likely that the higher education will continue to make progress in alignment with this movement or trend of cooperative learning, the readiness and commitment of the lecturers or professors in implementing this approach is still vague. Studies could be conducted to investigate the readiness and commitment of cooperative learning among lecturers of higher institutions of learning.

Implications and suggestions for educational practice

As shared by the lecturers through their reflections, a careful preparation is needed to ensure the successfulness of cooperative learning approach in classrooms. This actually in a way highlights the importance of ensuring that each lecturer is trained and well informed of the skills needed for implementing cooperative learning approach. Without adequate and proper training or workshop, lecturers or professors who wish to implement this learning approach could be beating around the bush or struggling to come out with good preparation. More and consistent on-going professional development is needed in order to make sure that lecturers and professors are equipped with the right skills and at lease being exposed to the basic elements of cooperative learning such as positive interdependence, face-to-face promotive interaction, individual accountability, interpersonal and small group skill and group processing (Johnson & Johnson, 2003). It is crucial that each lecturer must: (a) get to know and trust each other; (b) communicate accurately and unambiguously; (c) accept and support each other; and (d) resolve conflicts constructively (Johnson & Johnson, 2009).

REFERENCES

Agashe, L. 2012. Cooperative learning in a post graduate research methodology course.*HEF Indian Journal of Higher Education, 3*(2), 43-49.

Ahles, P. and Contento, J. 2006. Explaining helping behavior in a cooperative learning classroom setting using attribution theory. *Community College Journal of Research and Practice, 30,* 609-626.

Cohen, E. G., Brody, C. M. and Sapon-Shevin, M. 2004. *Teaching cooperative learning: The challenge for teacher education*. Albany, NY: SUNY Press.

Cooper, J. L. and Robinson, P. 2011. *Small group learning in higher education: Research and practice.* Stillwater, OK: New Forums Press.

Cooper, J., Prescott. S., Cook, L., Smith L., Mueck, R. and Cuseo J. 1990.*Cooperative Learning and College Instruction*. Long Beach, CA: California State University Foundation.

Ediger, M. 2001. Learning opportunities in the higher education curriculum. *College Student Journal, 35*(3), 410.

Education Research Institute, Seoul National University, Seoul, Korea.http://dx.doi.org/10.1007/s 12564-010-9135-8.

General Psychology Monographs, 131 (4), 285-358. http://dx.doi.org/10.3200/MONO.131.4.285-358

Goodsell, A., Maher, M. and Tinto, V. 1992.*Collaborative Learning: A Sourcebook for Higher Education.* University Park, PA: National Center on Postsecondary Teaching, Learning, and Assessment.

Johnson, D. and Johnson, F. 2003. *Joining together: Group theory and group skills* (8th ed.). Boston: Allyn and Bacon.

Johnson, D. W. and Johnson, R. 2005. New Developments in Social Interdependence Theory. *Genetic, Social, &*

Johnson, D. W. and Johnson, R. T. 2009. An Educational Psychology Success Story: Social Interdependence.

Johnson, D. W., Johnson, R. T. and Smith, K. A. 1991. *Cooperative learning: Increasing college faculty instructional productivity* (ASHE ERIC Higher Education Report, No. 4). Washington, DC: The George Washington University.

Johnson, D. W., Johnson, R. T. and Smith, K.A. 2006. *Active learning: Cooperation in the college classroom*. Edina, MN: Interaction. Kagan.

Johnson, D., Johnson, R. and Holubec, E. 1998. *Cooperation in the classroom*. Boston, MA: Allyn and Bacon.

Johnson, D.W., Johnson, R.T. and Smith K. 1998. Cooperative Learning Returns To College: What Evidence Is There That It Works?, *Change*, 27-35.

Jolliffe, W. 2007. *Cooperative learning in the classroom: Putting it into practice*. Retrieved from http://books.google.com.jm/books?id=YCHKT00xa4C&pg = PA1&dq=cooperative+learning&lr=

Kagan, S. and Kagan, M. 2009. *Kagan cooperative learning*. San Clemente, CA: Kagan Publishing.

Kalman, C. S. 2007. *Successful science and engineering teaching in colleges and universities*. Bolton, MA: Anker.

Lie, A. 2008. *Cooperative Learning: Changing Paradigms of College Teaching*. Retrieved from http://faculty.petra.ac.id/ anitalie/LTM/cooperative_learning.htm.

Millis, B. J. (Ed.) 2010. *Cooperative learning in higher education*. Sterling, VA: Stylus.

Millis, B. J. and Cottell, P. G. 1998. *Cooperative learning for higher education faculty*. American Council on Education. Phoenix, AZ: Oryx Press.

Moore, K. D. 2008. *Effective instructional strategies: From theory to practice*. Thousand Oaks, CA: Sage Publications.

Opitz, C. 2008. *SEL Overall Plan.* Retrieved from http://www. edutopia.org/pdfs/coop_math_bowman/bowman_sel_overa ll_plan.pdf

Paulson, D.R. and Faust, J.L. 2008. *Active Learning for the College Classroom*. Retrieved from http://www.calstatela. edu/dept/chem/chem2/Active/main.htm.

Sahin, A. 2010. *Effects of Jigsaw III technique on achievement in written expression*. Asia Pacific Educ. Rev,

Slavin, R. E. 2011. *Instruction Based on Cooperative Learning*. In R. E. Mayer and P. A. Alexander (Eds.), Handbook of Research on Learning and Instruction (pp. 344-360). New York: Taylor & Francis.

Terenzini, P.T., Cabrera, A.F., Colbeck, C.L., Bjoklund, S.A. 2001. Collaborative learning vs. lecture/discussion: Students' reported learning gains. *Journal of Engineering Education, 90*(1), 123–130.

Theory and Cooperative Learning. Educational Researcher, 38(5), 365-379. http://dx.doi.org/10.3102/0013189X 09339057

Tran, V. D. and Lewis, R. 2012a. Effects of Cooperative Learning on Students at An Giang University in Vietnam. International Education Studies, 5(1), 86-99. http://dx.doi.org/10.5539/ies.v5n1p86.

Tran, V.D. and Lewis, R. 2012b. The effects of Jigsaw Learning on Students' Attitudes in a Vietnamese Higher Education Classroom. *International Journal of Higher Education,* 1(2), 1-13. http://dx.doi.org/10.5430/ ijhe.v1n2p9

Williams, R. B. 2007. *Cooperative Learning: A Standard for High Achievement*. Thousand Oaks, CA: Corwin Press.

Appendix

Interview Questions

1. After actually implementing cooperative learning in your classrooms/lecture halls, can you share your experience with me?
   -Describe one of your successful experience that you like.
   -Describe any experience (if you have one) that you considered as a failure.
   -What conclusion do you draw from your own experience/s while implementing cooperative learning in your classrooms /lecture halls.
2. Tell me about the difficulties or anything that your considered as challenges while implementing cooperative learningin your classrooms/lecture halls.
   - Preparations/time/resources
   - Any issue related to students especially when they were learning or being assigned into small group
3. Tell me about masters' student social skills and interpersonal skills when they were involved in cooperative learning.
4. Tell me briefly your own belief about the implementation of cooperative learning approach as one of the important teaching strategy at university level.

****