

## AN ASSESSMENT OF COOPERATIVE LEARNING EFFECTIVENESS IN TOURISM AND HOSPITALITY TEACHING – A CASE STUDY OF SELECTED STUDENT GROUPS AT STRATHMORE UNIVERSITY IN KENYA

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### Abstract

*Cooperative Learning has been defined as a relationship in a group of students that requires positive interdependence, individual accountability, interpersonal skills, face-to-face promotive interaction, and processing. Several techniques have been used to implement to advance learning amongst groups of tourism and hospitality students. While a number of methods have delivered favourable results in students' motivation and learning, some have been used with counterproductive results. The purpose of this study therefore was to carry out a practical assessment of a specified cooperative learning technique using selected student groups within the School of Tourism and Hospitality in Strathmore University, Kenya. In this study, identified learning groups were given fundamental rules on how to use the chosen technique and thereafter asked to apply the technique in a specified learning session. Students were then asked to complete a simple questionnaire to make judgement on the learning effectiveness of the technique and their attitude to it regarding group dynamics. This study established that there are aspects typical of cooperative learning that should be encouraged and specific aspects that should be discouraged. The research identified major factors that should be considered to enhance cooperative learning in tourism and hospitality education in Africa*

**Key words:** Cooperative learning, Tourism education, Hospitality Education, teaching and learning

**JEL Classification:** L83, M37

## I. INTRODUCTION

### Background

The quest for excellence in teaching and learning has now motivated the desire to examine the best way to facilitate learning, especially in higher education just as it has always been done in the lower learning level (Light & Cox, 2008). Various methods and techniques of learning that results into better outcome have been coined and used in classrooms. They include those that enable learners to discuss in groups and learn from each other.

According to Christudason (2003), many institutions of learning now promote instructional methods involving 'active' learning that present opportunities for students to formulate their own questions, discuss issues, explain their viewpoints, and engage in cooperative learning by working in teams on problems and projects. She calls it 'Peer learning,' a form of learning that enhances the value of student-student interaction and results in various advantageous learning outcomes.

To realize the benefits of peer learning, Christudason (ibid) says that teachers must provide 'intellectual scaffolding.' Thus, teachers need to prime students by selecting discussion topics in which all students are likely to have some relevant knowledge of. Teachers can also raise questions or issues that prompt students towards more sophisticated levels of thinking. These are collaborative processes that have been devised to get all group members in a particular class to participate meaningfully.

Despite this assertion, in many instances of learning, students have always competed instead of cooperating. Ip (2003) says that competitive and individualistic learning situations discourage active construction of knowledge. It also impedes the development of talent by isolating students, and creating negative relationships among classmates and with instructors. However, challenge and social support must be balanced if students are to cope successfully with the stress inherent in cooperative learning situations. There are considerable data indicating that higher achievement, more positive relationships and better psychological adjustment results from cooperative rather than from competitive or individualistic learning (Johnson & Johnson, 1989).

Against the foregoing, this research is proposed to help generate ideas that may be helpful in cooperative learning processes. Under the banner of cooperative learning, a series of benefits and challenges of this method of learning are to be highlighted. Out of the various tests and assessment of techniques, this research intends to build a bridge between the challenges and benefits of cooperative learning

**Problem Overview**

In higher education teaching, many lecturers have tried to appropriate the maturity of the students by using cooperative based learning methods to enhance their teaching. They have used a series of methods to do this namely, on session cooperative round table, Focussed Listing for brainstorming, structured problem solving, one minute paper, reciprocal teaching and group take away projects. While some report very successful results in terms of the desired learning outcomes, other lecturers have expressed fears that the cooperative learning mechanisms have so many weaknesses. Sessa and London (2007) say that a facilitator in cooperative learning must create specified structures for stimulating cooperative learning. The authors however, do not give clear outline of what should stimulate this method of learning. Assessment has been another major challenge associated with the application of cooperative based learning (Hellstrom, Nilsson & Olsson, 2009). This research will therefore carry out investigations on how groups learn using cooperative learning methods and to register pertinent challenges of the techniques as well as develop a functional framework to guide effective cooperative learning

**II. PURPOSE OF THE STUDY**

The main purpose of this study is to identify benefits of cooperative learning and its challenges with the aim of developing an integrated framework for improving cooperative learning effectiveness in the higher education sector. In particular, the study needed to identify challenges faced by various members in cooperative learning scenarios and the benefits obtained by students who participate in cooperative learning scenarios. It also purposed to establish the students' opinion regarding the best way to learn in cooperative learning processes and finally propose an integrated framework that can improve cooperative learning in higher education

**III. LITERATURE REVIEW**

The term cooperative learning and group based learning have been used interchangeably. Scholars argue that they should be viewed differently (Balantine & Larres, 2007). These authors define cooperative learning as a robust structure that includes features that are not ordinarily used in common group learning techniques. It is a learning style that requires systematic management ranging from careful group formation, assignment of individual roles within groups, group management, assessment of group tasks and giving feedback on group performance. Cooperative learning is one of the ways through which teaching and learning is made better by lecturers as it enables them to diminish their traditional classroom control while encouraging students' mastery of the learning process (Morrison & Johnston, 2003).

In her article 'Peer learning: varieties, benefits and problems,' Nancy Falchikov (2005) stresses the importance of group learning and reaffirm that Cooperative learning is one of the success stories of educational reform as it has solid teacher support and a favourable research base. She however states that cooperative learning only works best in the conditions such as Face-to-face interaction where there exist positive interdependence and promotive interdependent goals. The situation must also enable individual accountability and personal responsibility for reaching cooperative goals, frequent practice with small-group interpersonal skills and regular group processing and reflection. A number of techniques have been used by various lecturers to facilitate cooperative learning. Some of the methods have been briefly explained hereunder.

**Roundtable**

Roundtable structures can be used to brainstorm ideas and to generate a large number of responses to a single question or a group of questions. The main issue here is the question or the problem you have asked the students to consider. It has to be one that has the potential for a number of different "right" answers. Relate the question to the course unit while keeping it simple so that every student can have some input. Once time is called, the lecturer determines what he or she wants to have the students do with the lists for example they may want to discuss the multitude of answers or solutions or they may want to share the lists with the entire class.

**Focused Listing**

Focused listing can be used as a brainstorming technique or as a technique to generate descriptions and definitions of concepts. Focused listing asks the students to generate words to define or describe something. Once students have completed this activity, a lecturer can use these lists to facilitate group and class discussion. As an example, students can be asked to list 5-7 words or phrases that describe or define what a motivated student does. From there, students may be asked to get together in small groups to discuss the lists, or to select the one that they can all agree on.

1) **Structured Problem-solving**

Structured problem-solving can be used in conjunction with several other cooperative learning structures. In this system, have the participants brainstorm or select a problem for them to consider. Assign numbers to members of each group (or use playing cards) and have each member of the group be given a different number or suit. Commence the discussion as a group.

**One Minute Papers**

In this method students are asked to comment on questions like the ones given in the example below. Give them one minute and time them. This activity focuses them on the content and can also provide feedback to the teacher. Such one minute papers can be used to introduce the next day's discussion, to facilitate discussion within a group, or to provide the teacher with feedback on where the student is in his or her understanding of the material.

**Reciprocal teaching**

This is a scenario that requires that a lecturer gives a brief introduction to a topic and sets up a group where each member of the group is given a small portion of the topic (a section) to research and teach the other members of the group.

**IV. GROUP TAKE AWAY PROJECT**

This is a formative or summative group problem assignment that requires a set team of students to meet at their own time and solve.

A critical requirement in the effective management of cooperative learning is in the formation of the learning group. While many scholars may have complaint that there are number of weaknesses in cooperative learning some failures could be attributed to poor formation and management of the group. According to McDougall and Beattie (1996), a systematic framework must be employed in the formation and management of cooperative learning. The authors suggest that selection of learning group should be based on learning style, team type, organisational mix as well as inherent expert knowledge in one or two members of the group

In setting up cooperative learning group, it has been suggested that diversity of group members be ensured so that members can appropriate their differences positively (Driver, 2003). However, the author argues that in setting up, the lecturer must find an optimum level of diversity as too much or too little may also be counterproductive. In addition to the requirement for diversity, a cooperative learning group must be equipped with a high quality of relationship amongst individuals within the group (Butera & Buchs, 2001). Further, at the implementation stage Sessa and London (2007) say that a facilitator in cooperative learning must create specified structures for stimulating cooperative learning. The authors assert that no matter what the setting is, proper design and implementation of cooperative learning involves five steps. The steps starts with Pre-instruction in which prior planning helps to establish the specific cooperative learning technique to be used and lays the foundation for effective group work. Plan out how groups will be formed and structure how the members will interact with each other. This is followed by introduction of topic to the students then monitoring and intervention into the study groups and finally assessment of cooperative learning outcome

A series of benefits of cooperative learning have been identified. Aside from the focus on students, McManus (2002) says that cooperative learning pose great challenges as well as benefits to lecturers. He says teachers do benefit as they mingle well with the students and get to know them well. Again he stresses that it is the greatest joy of teaching for a teacher to see the evidence of students' command of subject. On the other hand he says cooperative learning expose a few challenges to teachers in higher education as follows:

- Teachers fear that in many cases they register a change in learning goals by the students,
- Other teachers fear giving up apparent control of the class each time they go out to teach,
- Lastly, the technique may require that the teacher sets aside more time and energy in the coordination of assignment.

However cooperative learning has not been practised without challenges. Teachers and students have together faced a number of difficulties in the management of learning using cooperative learning techniques. Problems involving the coverage of syllabus being either very fast or very slow have been noted as well as difficulties in assessing output via observation and possible team versus individual grading of group work. Others include problems with various types of personalities in group work and the presence of hitchhikers or joy riders within the group. Issues to do with dominant personalities of the 'know it all' or a perfectionist have been registered and there have also been cases where individual students' ability to give constructive criticism or receiving and giving peer review in the course of group work is a great challenge. Some of these challenges have demeaned cooperative learning and may have discouraged some lecturers against using the method.

## V. STUDY METHODOLOGY

The study employed a qualitative assessment of student work teams who were assigned to a specified group learning scenario within the School of Tourism and Hospitality of Strathmore University. A class of 34 students doing Hospitality Operations Management was chosen for this investigation. These students were divided into four learning groups: two groups of eight students each and the other two groups of nine members each. The chosen cooperative learning method to be evaluated in this study was the Reciprocal Teaching. As had been explained earlier, this scenario required that the researcher give a brief introduction to a topic and sets up four groups as already indicated above.

The study population was made of the registered students of the School of Tourism and Hospitality who are pursuing either the full time or part time programmes in both the BSc in Hospitality Management or BSc in Tourism Management. A convenient sample of 34 students was chosen from the population. This convenience sampling was based on the fact that the researcher was to be assigned a subject to teach this particular student group. In this regard, 34 students undertaking a subject named 'Hospitality Operations Management' were identified and used in this study. These were 3<sup>rd</sup> year fulltime and 4<sup>th</sup> Year part time BSc students doing Hospitality Management within the School of Tourism and Hospitality. Each group member was then given a small portion of the larger topic to research or study at own time, and teach the particular section to the whole class. Each group was then assigned a group study topic in the area of Services Marketing.

The groups were expected to hold group meetings and discuss the topic and make preparation for reciprocal teaching under the following guidelines:

- Discuss the general scope of the topic as a group
- Subdivide the assigned topic into 5 parts
- Discuss and agree amongst themselves who to assign which sub topic
- Allow assigned members adequate time to carry out research and make preparation to build up topic content
- Members to hold meetings as maybe necessary to check progress made by fellow members and to assist each other with additional content where necessary
- Ensure group readiness to teach that topic on a particular day, each member teaching the whole class his/her portion of subtopic in turn.

To enable effective assessment of the efficacy of the chosen cooperative learning scenario, two methods of data collection were employed. The first method employed was the use of an unstructured questionnaire to collect individual opinion of each cooperative learning participant in every group. This was done after every reciprocal teaching session by a particular group. The second method was the use an observation check list. The checklist was prepared by the researcher and used during reciprocal teaching sessions to facilitate assessment of pertinent quality issues of this method of cooperative learning. In this regard the research presents the following two sets of data collection tools

## VI. DATA COLLECTION AND DISCUSSION

All the students who participated in this study were registered 4<sup>th</sup> year students of Strathmore University undertaking BSc in either hospitality or Tourism Management at the School of Hospitality and Tourism.

### **Group participation and roles**

Individual participation in cooperative learning is one of the aspects that has been seen as highly critical in the working of any group. This study therefore sought to establish the role of every individual in the general group operation. In all the cases, students indicated that they were either ordinary members or group coordinator. In essence, the records indicated that there were four group coordinators and the rest i.e. 30 were ordinary group members. However, it should be noted that 20 of the 34 participants played the role of peer teacher. The rest were involved in assisting the assigned peer teacher with research into the topic and other pertinent requirements for the preparation

### **What students like most in the Reciprocal Teaching Method?**

At the end of the presentation by each group, the members of the Reciprocal teaching team were given a questionnaire to complete. In one of the questions, students were asked to state what they enjoyed most in the reciprocal teaching method. A series of qualitative responses were received for this open ended question. These responses were reconciled for meaning and purpose and then summed up into just four major different items as follows:

**Table 2: What students like most in Reciprocal Teaching Method**

Collated Responses	No of students	% of total
More questions asked in class also made me learn more during class presentation by other peer teachers	28	82.35
Freedom to ask questions made students ask many questions than they do normally with the normal lectures and this made me to go and search for more clarifications before I went to present to the rest of the class.	22	64.71
I learnt more from my colleagues than I do from my teacher	18	52.94
Working together with group members to enrich my lesson	12	35.29

As shown in the Table 2, a large proportion of students feel that more questions asked in class during class presentations by peer teachers, made them learn more, and it is an aspect they liked most. This was followed by the general feeling that students enjoyed during these presentations which made them ask questions as opposed to when they are taught by the regular teacher. It is this aspect that motivated the first point as an aspect they liked most during the exercise. Generally, students feel they learn more from this method than they would learn from a teacher. The students were then asked if the aspects mentioned in Table 4.2 would motivate them to develop a desire to learn. All the 34 students stated that these aspects would definitely encourage them to develop an intrinsic desire to learn.

**What students did not like most in the reciprocal teaching method**

Along the same line, participants were asked to state what they did not like most in the reciprocal teaching method. The students’ responses were again collated and merged where necessary and the following makes the summary of these responses:

**Table 3: What students did not like most in the Reciprocal Teaching Method**

Collated Responses	No of students	% of total
Student colleagues disrupt presenter during reciprocal teaching	26	76.47
Requirements to meet as a group – lack of time	24	70.59
Unplanned meeting times	16	47.06
Bossy and not facilitative leadership	14	41.18
Limited preparation time	12	35.29
Other members assuming that I know nothing	8	23.53
Groups of 9 were too big	4	11.76

From the analysis in Table 3, the two most popular responses that pointed at why students may not like the reciprocal teaching method included the requirement to meet as a group (lack of time) and the fact that student colleagues disrupt presenters during reciprocal teaching. However unplanned meeting time and bossy and non facilitative leadership were equally cited as very critical issues that made a number of students to dislike reciprocal teaching. The students were again asked if the aspects collated in Table 3 would discourage their desire to learn. All the 34 students stated that these aspects were definitely very important to them as they can negatively influence their desire to learn

**Recommendations to help improve reciprocal teaching**

Students were finally asked to make recommendations that can help improve reciprocal teaching as a method of cooperative learning. A number of suggestions were advanced and these have been outlined in Table 4

**Table: 4: Recommendations by students to improve Reciprocal Teaching method**

Collated Responses	No of students	% of total
Student colleagues should cooperate with other groups and individuals making group driven task presentation	30	88.24
Individual roles must be well clarified	22	64.71
Allow adequate time for preparation	16	47.06
Set up clear rules that will govern group relationship	14	41.18
Group leader should be chosen by Members	12	35.29
Outline the task requirement clearly	10	29.41
Group should be small enough and manageable	6	17.65

Don't have too many group tasks	4	11.76
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Table 4 shows that the most students recommend that student colleagues should cooperate with other groups as well as individual classmates who are involved in making group tasks presentations. The respondents also recommended strongly that individual roles in groups must be well clarified. Students also felt that group tasks should be given adequate time to enable preparation and also that clear rule that govern group relationships should be established and applied. There are four points that were cited by just a small number of students but are equally important recommendations. They include the fact that group leaders should be chosen by members, group tasks should be outlined clearly, groups should be small enough and manageable, and too many group tasks should be discouraged in class.

**Observation assessment framework**

As students in the various Reciprocal Teaching groups prepared and made presentations in the Reciprocal Teaching project, a checklist was prepared to facilitate group behaviour, interaction and performance quality. Observations were made as each group made presentations and a summary of the findings are presented in Table 5.

**Table 5:** Observation Record on The Reciprocal Teaching method as exhibited by Respondents

Parameters of Observation	Observation Comments
General organisation of the group	<ul style="list-style-type: none"> <li>• 3 out of 4 groups exhibited very good organisation – Elements of organisation</li> <li>• Show of maturity in groups</li> </ul>
Interest to learn from their colleague	<ul style="list-style-type: none"> <li>• Listen to more organised students</li> <li>• Less organised do not attract attention</li> <li>• General interest is well shown through questions and general contribution</li> </ul>
Trust from members to seek clarification from peer teacher	<ul style="list-style-type: none"> <li>• The more organised and prepared peer teacher is asked more questions</li> <li>• The less organised is also asked questions that are interrogative of knowledge</li> <li>• Some are ignored and not asked any question</li> </ul>
General cheer and support from team members	<ul style="list-style-type: none"> <li>• Team members show interest to help their peer teacher</li> <li>• Some come out to answer questions on behalf of the teacher</li> </ul>
Preparedness of the peer teacher	<ul style="list-style-type: none"> <li>• Most students looked well prepared</li> </ul>
Communication ability of the peer teacher	<ul style="list-style-type: none"> <li>• The 1<sup>st</sup> groups to make their presentation had poor from most presenters</li> <li>• Groups that presented later in the exercise improved communication</li> <li>• Most peer teachers communicated well</li> <li>• Preparation made them communicate well</li> </ul>
Confidence of the presenter (peer teacher)	<ul style="list-style-type: none"> <li>• Well prepared students had more confidence in presentation</li> <li>• Confidence is also related to group cheer and support</li> <li>• Interest to learn from members gave peer teacher more confidence and courage</li> </ul>
General and instant formative assessment of the leaning outcome	<ul style="list-style-type: none"> <li>• Class participation expressed a positive formative assessment</li> </ul>

**VII. CONCLUSIONS AND RECOMMENDATIONS**

A number of issues emerged from this study regarding cooperative learning amongst students undertaking undergraduate degree in the field of tourism and hospitality. From this study, the following conclusions can be made:

- Students enjoy classroom freedom and would always seek this freedom to enable them ask questions more openly so as to accelerate learning amongst them.
- Students ask fewer questions during the normal classroom teaching in the traditional lecturing method where learning is dominated by one way teaching by a lecturer.
- Students learn have the potential to learn more from well prepared colleagues than they would from the normal classroom teaching
- The freedom generated by cooperative learning motivates the students' willingness to learn and can possibly enable them to learn more

As this study found out, there are certain aspects of cooperative learning that discourage students from enjoying full participation in cooperative learning. Students detest being disrupted when they are making their contribution during cooperative learning. They also generally feel they should be given adequate time to prepare for group assignments. Alongside this, students feel that they do not have enough time in college and would prefer well organised and coordinated timings to suit their plans for group meetings. On group leadership, students see other group members as peers and will always not like bossy leadership for the group tasks.

Regarding the quality of the outcome from the reciprocal teaching form of cooperative learning, this study concludes that students would prefer their colleagues to express adequate cooperation during reciprocal teaching sessions. This can enable presenters to have courage and confidence during their presentations. Individual roles within groups must also be clarified to eliminate role as well as leadership ambiguity during group task preparation. Students would again want clear rules set up to guide relationships within cooperative learning groups and that group leaders be chosen by members themselves so that leadership legitimacy is vested on the authority of members

From the reciprocal teaching observation of the behaviour of students working in groups, the following conclusions were made:

- a) Higher education students are capable of showing a high degree of maturity in their organisation and handling of group tasks
- b) Students will generally listen better to more organised and well prepared colleagues in peer learning exercises
- c) Students show interest in learning through physical affirmation, asking questions and giving positive responses to on session learning probing questions
- d) Students groups inculcate a winning attitude in their members thus specific groups would always want to provide adequate cheer and support to colleagues. This can be a very good support to group learning
- e) Students generally learn from each other to perfect their class performance. This is evidenced from the fact that student groups that made presentations after the first group tried to improve their presentations based on the previous group's examples and general class and members' comments
- f) Good preparation and general cheer and support from colleagues enhance confidence of the peer teacher.

This study reveals that there are aspects typical of group learning that should either be encouraged or discouraged. The research has established important factors that need to be encouraged in cooperative learning. It therefore recommends that higher education teachers should set clear rules to guide relationships within class work groups and then encourage greater freedom to provide students with courage and confidence to speak their minds. The lecturer must clarify group and individual roles so that members develop focus on assigned tasks. At the same time the students should be given adequate time to accomplish group tasks while the lecturer promotes a culture of cooperation amongst group members. As much as possible students working in groups should be allowed to drive group issues and controls.

## VIII. REFERENCES

1. Ballantine, J. & Larres, P. M. 2007. *Cooperative learning: a pedagogy to improve students' generic skills?* Education + Training. 49(2):126-137.
2. Christudason, A. 2003. *Peer learning*. [Online] Available from: <http://www.cdtl.nus.edu.sg/success/sl37.htm>. [Downloaded: 02-02-2010].
3. CIDR, University of Washington. Resources in Cooperative learning. [Online] Available from: <http://depts.washington.edu/cidrweb/resources/CooperativeLearning.html> [Downloaded: 02-02-2010].
4. Buchs, C. & Butera, F. 2001. *Complementarity of information and quality of relationship in cooperative learning*. Social Psychology of Education. 4:335-357.
5. Driver, M. 2003. *Diversity and learning in groups*. The Learning organization. 10(3):149-166.
6. Falchikov, N. 2005. *Peer learning: varieties, benefits and problems*. Workshop Paper at University of Leeds, 13 April 2005.
7. Hellstrom, D., Nilsson, F., & Olsson A. 2009. *Group assessment challenges in project based learning – Perceptions from students in higher engineering courses*. Den 2:a Utvecklingskonferensen för Sveriges ingenjörutbildningar, LTH 2-3 December.
8. Ip, Y.K, 2003. *A Balance between Competition & Cooperation*. [Online] Available from: <http://www.cdtl.nus.edu.sg/success/sl17.htm>. [Downloaded: 02-02-2010].
9. Johnson, D.W. & Johnson, R.T. (1989). *Cooperation and Competition: Theory and Research*. Edina, MN: Interaction Book Co.
10. Light, G & Cox R. 2008. *Learning and Teaching in Higher Education*. Los Angeles: Sage Publications.
11. McDougal, M. & Beattie, R. S. 1996. *Learning from learning groups*. Employee Counseling Today: The Journal of Workplace Learning. 8(3):26-30.
12. McManus, D.A. 2002. *Changing a course from lecture format to cooperative learning*. Updated Spring Quarter 2002, from an article which originally appeared in Winter 1996 issue of *Paideia: Undergraduate Education at the University of Washington*. 4(1):12-16.
13. Morrison, A & Johnston, B. 2003. *Personal creativity for entrepreneurship: Teaching and learning strategies*. Active Learning in Higher Education. 4(145).
14. Sessa, V. I. & London, M. 2007. *Interventions to stimulate group learning in Organizations*. Journal of Management Development. 27(6):554-573.