

## **The Impact of Cooperative Learning for Academic Achievement among Malaysian Hospitality Students**

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**ABSTRACT:** *The purpose of this quasi-experimental study is to determine the impact of cooperative learning method on hospitality students for academic achievement. This study is also conducted to determine relation between academic achievement and interpersonal skills of the students through cooperative learning method in Hotel Housekeeping Management Course. Participants of the study were second year students of a private hospitality college in northern Malaysia. Sample population of the study consisted of 80 students enrolled in Diploma in Hospitality Management programme. The study implemented a non-equivalent (pre-test and post-tests) control-group design. Data analyses were then conducted by using a t-test to compare the mean difference between the pre-test and post-tests scores of the treatment and comparison group. The data on relation between academic achievement and interpersonal skills of the students through cooperative learning was analysed through correlations test and results from descriptive statistics. Results indicated that there were significant differences in academic achievement on hospitality students who participated in cooperative learning method as compared to the students who participate in non-cooperative learning method. Cooperative learning method does influence students' academic achievement positively. The results also demonstrated that there is positive relationship between academic achievement and interpersonal skills of the hospitality students in the cooperative learning method group. The overall results of this study suggested that cooperative learning method is strongly recommended to address the heterogeneous group of students in hospitality classroom.*

**KEYWORDS:** *cooperative learning, academic achievement, interpersonal skills, hospitality students*

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### **I. INTRODUCTION**

Malaysian hospitality and tourism industry has been recognized as one of the major industries that provide foreign exchange earnings and generate employment. According to Bagul & Marzuki (2007), Malaysian government conveyed a strong support to this industry which leads to remarkable growth. Based on arrival profile, Malaysian Association of Hotels (MAH, 2012) also recorded a total of 2,330 hotels with 168,901 hotel rooms to cater for tourist arrival by end of 2011. Its commitment towards the industry is very encouraging and has spurred many hotel operators to improve the quality of their services. Therefore, upgrading the competencies level of workforce is very important in the industry. Due to increasing employment opportunities and demand in the industry, the number of tourism and hospitality education program offered by higher learning institutions in Malaysia has increased rapidly in the recent years (Bagul & Marzuki, 2007). In order to be relevant with the market demand for the 21st century, the Malaysian government has taken a holistic, knowledgeable, highly skilled, flexible and creative approach towards the demand of 21st century workforce including hospitality industry (MAH, 2012). Today, pursuing higher education is not just about getting their paper qualifications but also to prepare graduates to meet the future demand of the workforce.

Theoretical study alone will not be enough to empower graduates with the ability to build national competitiveness (Chang & Hsu, 2010; (News Straits Times, 2012)). Harkison, Poulston, & Kim (2011) believed that hospitality education was technically viewed as vocational industry. In fact, hospitality education is one of training courses that prepare graduates for jobs by providing the graduates with necessary skills. They suggested that it was essential for hospitality graduates to have the capacity for soft skills including personality traits and interpersonal skills which complement the hard skills or the technical requirements of a job. As such, it was crucial for hospitality educators to develop the benchmark to ensure quality of hospitality students to meet the

global workforce. Positive interpersonal skills and personality has always been a value in the field of hospitality (Bharwani & Butt, 2012). Due to this issue, hospitality educations strive to produce a well-balanced graduate who possesses both academic achievement and interpersonal skills to meet this challenge. In a review of studies on current issues in hospitality industry, Bagul & Marzuki (2007) and Cheng (2008) believed that employers become more demanding in expecting our graduates to have better interpersonal skills such as oral, written communication skills and problem solving skills, besides academic achievement. One main issue which has always been an area of concern to all higher learning providers in Malaysia is that most local graduates were unable to apply what they have learned in the university to the workplace. This viewpoint is supported by Bagul & Marzuki (2007); Lee (2006); Bharwani & Butt (2012) where they observed that campus recruiters especially the local and international hotel operators perceived that many university educators were out of touch with the industry, unaware of the current needs of the industry and continued solving educational problems based on the past experiences not relevant for the new century.

Hospitality students enrolled in one of private college in Northern Malaysia were made up of varied student populations based on their gender, social background, academic achievement, individual ability, interest, interpersonal skills and personality. Due to the heterogeneous nature of the group, lecturers faced difficulty in addressing individual needs to achieve lesson objectives and learning outcomes of the course that will not only focus on the academic performance but also on other soft skills including interpersonal skills and other criteria required by the workforce. Considering high expectation from the workforce, it is time to change the conventional teaching and learning styles to meet the changing environment. Exploring the impact of cooperative learning instruction would be the best approach to blend the educator and industry objective.

The purpose of this quasi-experimental study was to determine the impact of cooperative learning method on hospitality students' academic achievement in Hotel Housekeeping Management Course. The hypotheses built on the research as follow:

Hypothesis:

- H<sub>0</sub>: There is no significant difference on hospitality students' academic achievement between the cooperative learning method group and non-cooperative learning method group.
- H<sub>1</sub>: There is a significant difference on hospitality students' academic achievement between the cooperative learning method group and non-cooperative learning method group.

## **II. REVIEW OF LITERATURE**

### **2.1 Issues In Hospitality Education**

Hospitality industry (hotels, resorts, travel agencies, institutional lodging, casino, and restaurants) was recognized as one of the major industries in providing foreign exchange earnings and generating employment to the people due to their remarkable growth and strong support from the government. Malaysian tourism industry estimated that the international tourist arrivals grown around 8% during the forecast period (2011-2013) and projected arrivals were from China, India, and the Middle East. According to Watson & Mc Guire (2006), with globalization, the world has entered into a new and fast transition process and growth of tourism industry will foster the hospitality industry. From the perspective of hotel business, effective recruitment would lead to customer satisfaction and guest satisfaction may achieved through high degree of competent employees (Verginis & Wood, 2002).

It is a great challenge to hospitality educators to produce competent graduates in meeting employer demand. Moreover, hospitality education refers as part of vocational and business programs that are intended to satisfy their respective industry needed for skilled employees (Kong & Baum, 2006). Although there was a requirement to ensure the academic curriculum met both educational and industry expectations, Mann (2005) viewed that most of the hospitality students learned under teacher-centred classroom or traditional learning method. This matter was due to the number of students and extensive syllabus content in each course of hospitality programme. In the context of hospitality education, traditional learning method alone is not sufficient in producing well-balanced individuals with good academic achievement and interpersonal skills to meet the current workforce.

In the real classroom; students population varied based on their social background, academic achievement and personality in hospitality education. The question is how to deliver the lesson effectively to every student in the classroom and motivate them to work collaboratively on class activities. A review of literatures suggested that the success of cooperative learning in other field such as Engineering, Mathematics,

Psychology Education and Languages (Bolukbas, Keskin & Polat, 2011; Hsiung, 2012) enhanced their students' academic achievement, improve self-esteem, communication skills and develop intrinsic motivation. Cooperative learning generates an opportunities for the students to communicate and learn from each other. This view was supported by Mizano (2011), cooperative learning would provide the opportunities for students to interact explain and describe steps used in understanding the main concept of the course as compared to traditional learning method. Besides academic achievement, social implication and benefits potentially improve their communication and interpersonal skills.

## **2.2 Overview of Cooperative Learning**

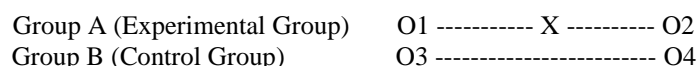
Cooperative learning, due to its original history and positive outcomes has been in focus in the past century. Kagan (1994) defined cooperative learning as different instruction methods where teachers encourage students to cooperate in learning. According to Cheng (2008), cooperative learning based in classroom learning environments in which learners perform on academic tasks in small heterogeneous groups. In other words, cooperative learning can be described as small groups of learners working together as a team to accomplish a common goal. Miller and Peterson (2002) indicated that there were several variation models in cooperative learning approaches. The core developer of cooperative learning includes Robert Slavin, Roger and David Johnson, and Spencer Kagan has slightly different approaches in cooperative learning although the basic principles of cooperative learning do not change. Johnson and Johnson focus on developing a specific structure that can incorporate with a variety of curriculum which emphases on combining social skills with academic task. On the other hand, Kagan work focuses on the uses of many different structures to help facilitate active learning, team building and group skills. Meanwhile, Slavin's work utilised method from both Johnson and Johnson and Kagan and has resulted in the development of The Student Teams Achievements Divisions (STAD).

The expression "cooperative in education" may appear to be a twentieth century development. There were also systematic and widely international researches being done that lead to the development of the key concept and methods related to cooperation in education. According to William (2005), the methods applied in the classroom, was typically known as either cooperative learning or collaborative learning. In contrast with collaborative learning or group work, in cooperative learning, the teacher plays a significant role to incorporate elements of cooperative learning and ensure that the students know how to work cooperatively in a cooperative learning situation. The elements of cooperative learning may differ from one approach to another. Kagan (1997) approach laid four basic elements of cooperative learning structure (PIES) which need to be incorporated in learning namely; (i) positive interdependence; occurs when gain of individual and team positively correlate , (ii) individual accountability; requires that all students are actively involved and responsible for their own learning, (iii) equal participation; working as a team and all students are encouraged in equality of participation among students and (iv) simultaneous interaction; equality of active engagement where discussion and activities take place all at once.

## **III. METHODOLOGY**

### **3.1 Sampling And Data Collection Procedures**

This quantitative study utilized a pre-test and post-test, quasi-experimental design to determine the impact of cooperative learning on hospitality students' academic achievement. According to Christensen and Johnson (2000), a quasi-experimental design is an experimental research design that does not provide full control of potential confounding variables. In this design, the experimental group (Group A) and the control group (Group B) were selected without random assignment. Pre-test ( $O_1$ ,  $O_3$ ) and post-test ( $O_2$ ,  $O_4$ ) was administered to both groups. Only the experimental group received the treatment (X). A standard symbol used to show the design of a study provided by Campbell and Stanley (1963) as cited in Creswell (2003). This classical notation is presented by the following diagram:



Group A represents 40 participants in the treatment group. The participants were trained and participated in cooperative learning method. Additionally, there were 40 participants in Group B as the comparison or control group who did not participate in cooperative learning method or any other cooperative learning structures. O represents the pre-test and post-tests result, while the X represents the treatment: cooperative learning method for the experimental group. The study employed one previously established classroom of second year students undergraduate in Hotel Management Programme. The students were not randomly assigned to groups due to the fact that student's distribution was not within the control of the researcher, but was determined by the college administration.

### 3.2 Data Analysis Methods

Data are analyzed using the Statistical Package for Social Science (SPSS version 17). Descriptive statistics and inferential statistics will be used for the analysis presented in the data. Data analysis using the statistics will display the frequency, percentage and mean. The statistics also reflect the respondent composition and demographic characteristics such as gender, cumulative grade point average (CGPA) and level of English proficiency. Inferential statistics used in this study is the T-test. T-test is a powerful statistic that enables the researcher to determine the differences obtained between two groups is statistically significant. The independent-groups t-test is appropriate when different participants have performed in each of the different conditions (Coakes, 2012). In the study, the experimental group (Group A) utilise the cooperative learning method and the control group (Group B) utilise the non-cooperative learning method.

### 3.3 Survey Instrument And Reliability

The 20 questionnaire has been used to collect the data. The survey consisted four sections: demography profile, knowledge, comprehension and application. A five-point Likert scale ranging from 1=strongly disagree to 5=strongly agree was used to measure the extent to which respondents agree to disagree to each of the statement. Based on the reliability tests carried out by the researchers, the Cronbach alpha reliability coefficient was 0.87, indicated as good internal consistency among the 20 items in the questionnaires for this study.

## IV. RESEARCH FINDINGS

### 4.1 Respondents Demographics

There were 80 students with 33 males (14 in the experimental group and 19 in the control group) and 47 females (26 in the experimental group and 21 in the control group) was available for the purpose of the study. In short, purposive sampling was best used with small numbers of individuals or groups. The participants were heterogeneous in their overall performance of their first year CGPA result. Table 1 indicated that there were 18 and 15 participants with CGPA between 2.00 to 3.00 (low individual ability) whereas another 22 and 25 participants were 3.00 to 4.00 (high individual ability) in the experimental group and control group respectively. Most of the participants were in a category of average (62.5% from experimental group and 70% from the control group) in their English proficiency.

(TABLE 1) RESPONDENTS DEMOGRAPHICS

Participants	Gender		CGPA		English Proficiency			Total Participants
	Male	Female	High(3.00-4.00)	Low(2.00-3.00)	Good	Average	Poor	
<b>Experimental Group</b>	14	26	18	22	1	25	14	40
<b>Control Group</b>	19	21	15	25	3	28	9	40

### 4.2 Hypothesis Testing

H<sub>0</sub>: There is no significant difference on hospitality students' academic achievement between the cooperative learning method group and non-cooperative learning method group.

H<sub>1</sub>: There is a significant difference on hospitality students' academic achievement between the cooperative learning method group and non-cooperative learning method group.

Post-test results obtained by cooperative learning method group and non-cooperative learning method group are as shown in Table 2 and Table 3. Results obtained from a t-test on experimental and control group are displayed in Table 4.

**(TABLE 2) PRETEST AND POSTTEST RESULT FOR GROUP A (EXPERIMENTAL GROUP)**

Student	Gender	CGPA	ENL	Pretest Marks	Posttest Marks
1	Male	Low	Poor	55	80
2	Male	Low	Poor	50	75
3	Male	Low	Average	55	55
4	Male	Low	Average	60	85
5	Male	Low	Average	60	70
6	Male	High	Average	55	60
7	Male	Low	Average	75	85
8	Male	High	Average	65	80
9	Male	Low	Poor	60	65
10	Male	Low	Poor	35	75
11	Male	High	Average	60	85
12	Male	Low	Poor	60	80
13	Male	Low	Average	30	80
14	Male	Low	Average	60	65
15	Female	High	Poor	65	85
16	Female	High	Average	55	95
17	Female	Low	Poor	35	60
18	Female	High	Good	90	100
19	Female	High	Poor	60	95
20	Female	High	Poor	65	70
21	Female	High	Average	40	45
22	Female	High	Average	40	95
23	Female	High	Poor	50	95
24	Female	Low	Poor	55	85
25	Female	Low	Average	45	75
26	Female	Low	Average	65	85
27	Female	High	Poor	65	75
28	Female	Low	Poor	50	75
29	Female	Low	Average	55	55
30	Female	High	Average	65	80
31	Female	Low	Average	50	80
32	Female	High	Average	60	75
33	Female	High	Average	45	50
34	Female	Low	Average	40	55
35	Female	Low	Average	50	70
36	Female	High	Poor	40	80
37	Female	High	Average	55	70
38	Female	Low	Average	45	65
39	Female	High	Average	65	65
40	Female	Low	Average	35	70

**(TABLE 3) PRETEST AND POSTTEST RESULT FOR GROUP B (CONTROL GROUP)**

Student	Gender	CGPA	ENL	Pretest Marks	Posttest Marks
1	Male	Low	Average	55	55
2	Male	High	Average	75	75
3	Male	Low	Average	50	50
4	Male	High	Average	55	55
5	Male	Low	Average	60	60
6	Male	High	Average	40	55
7	Male	High	Poor	45	45
8	Male	Low	Poor	50	50
9	Male	High	Average	65	65
10	Male	High	Average	50	50
11	Male	High	Average	60	60
12	Male	Low	Average	80	80
13	Male	Low	Average	45	40
14	Male	Low	Average	40	45
15	Male	Low	Poor	45	65
16	Male	Low	Poor	50	65
17	Male	Low	Poor	50	50
18	Male	Low	Poor	45	45
19	Male	High	Good	50	50
20	Female	Low	Average	55	60
21	Female	Low	Average	45	45
22	Female	High	Average	40	40
23	Female	High	Average	40	40
24	Female	High	Average	65	65
25	Female	Low	Average	35	35
26	Female	Low	Average	55	55
27	Female	Low	Average	95	95
28	Female	Low	Average	35	35
29	Female	Low	Poor	80	80
30	Female	High	Average	60	60
31	Female	Low	Average	60	60
32	Female	Low	Average	50	60
33	Female	Low	Good	65	70
34	Female	Low	Poor	50	60
35	Female	Low	Poor	55	55
36	Female	Low	Average	75	75
37	Female	High	Average	40	45
38	Female	Low	Average	40	40
39	Female	High	Average	50	50
40	Female	High	Good	60	60

(TABLE 4) RESULTS OBTAINED FROM T-TEST FOR SAMPLES

	Cooperative Learning Method Group			Non-cooperative Learning Method Group			t	p
	M	SD	N	M	SD	N		
Pre-test	52.25	12.03	40	54.00	13.31	40	-.62	>.05
Post-test	74.63	13.02	40	56.13	13.18	40	6.31*	<.001

\* p<.001

Table 4 indicated that there is a significant difference on hospitality students' academic achievement between the cooperative learning method group (Experimental group) and non-cooperative learning method group (Control group).

The hypothesis was tested and the result obtained for the post-test is (t=6.314), p <.001 mean for the experimental group (M=74.63) and the mean for control group is (M=56.13), the conclusion and interpretation were as follows:

- a) The null hypothesis was rejected and concluded that the experimental group who received cooperative learning method (M=74.63, SD=13.02) had significantly higher mean in their academic achievement (post-test result) than those in control group who received non-cooperative learning method (M=56.13, SD=13.18) therefore accepting the alternative hypothesis.
- b) Result from the test concluded that students receiving the cooperative learning method performed better than students who received non-cooperative learning method. There was statistically significant difference in their academic achievement.

## V. DISCUSSION

Results affirmed that the cooperative learning method has positive impact on hospitality students' academic achievement. The pre-test and post-tests scores showed that both group experimental and control group showed an increase of scores from their pre-test and post-tests results. The difference of improvement between the treatment group and the comparison group was significant. Both the experimental group and control group covered the same content areas with scores taken from the same pre-test and post-tests questions. The only difference was the learning method employed to the participants. The experimental group participates in cooperative learning method while the control group practices non-cooperative learning method. The experimental group was introduced specifically to jigsaw, send a problem, consult between group and gallery tour structure which allowed students to work together to determine possible solutions to the assigned task or questions during the lesson. In the context of hospitality education, academic achievement alone is not convincing enough in producing well-balanced graduates to meet the industry demand. Hospitality education refers as part of vocational and business programs (Kong & Baum, 2006) and every hotel operators believed that skills and quality of staff is among the high factors for competitive success of their hotel business. Teamwork has been broadly adopted in many hospitality sectors to strengthen their market share and reduce employee turnover because team concept has become a key to success for business (Su, 2007) including hospitality and tourism. Therefore cooperative learning group is appropriate to prepare students for future workforce.

## VI. CONCLUSION

The presented study concludes that there is a significant positive impact on hospitality students' academic achievement following their participation in cooperative learning method group as compared to non-cooperative learning method group. Cooperative learning method enables students to work together as a team and partner which will reduce competitive among the heterogeneous group of students. The cooperative learning methods has enabled the students learned positive interdependence, individual accountability, participated equally within the class and interacted with other students in order to learn from each other. The students have improved their academic achievement and the achievement has gained positive relationship with their interpersonal skills. Such skills enable them to pursue their career in hospitality industry with more confidence in the future.

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