



Comparative Study of Accounting Students' Performance: 'Do it First' and 'Cooperative Traditional Learning' Approaches

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ABSTRACT

This study describes the academic and incremental performance of students by using two university alternative teaching techniques of Do It First (DIF) and Cooperative Traditionally Taught (CTG) approaches. Comparison of student's achievements in both methods is one of the many issues tested in this study to determine the more appropriate route to better learning. It further focuses on the level of preparation, likeness of courses, hours taken of outside class, quality of education, peer supports and friendliness and investment worthiness as moderating variables. This experimental study was conducted through the use of survey questionnaires to a cohort group of 30 students and the use of secondary data available in the university substantiates the rest of the research outcomes.

Keywords: *Performance of student, Do It First (DIF), Traditionally Taught approach (CTG), approaches*

Introduction

Students' academic performance in the university is essentially important that most employers use it as one of the indicators of how well the students manage their best while in the university. Employers consider the scholastic standing of students as a manifestation of their sense of responsibility as indicated by the academic grades in most core subjects. For accounting students, one of the core subjects is Strategic Management (MAF 640). Based on experience coupled with ocular observations, this course is another lucrative field that a graduate in accounting could pursue. Accounting graduates have the strong fundamentals to excel in this field as it is well entrenched in their curriculum.

Unlike the traditional accounting subject, MAF 640 is more dynamic in nature as it links all the various fields of business, accounting and management. With the current dynamism of the employment industry, a graduate could pursue into this area to combat less employability factors subsequent to graduation. It is worthwhile indeed that students should show greater inclination to the course to build an edge against many. Inline with the university objective to improving the likelihood of students achieving a 3 pointer grade, MAF 640 could be one of those core courses that students could excel.

Considering that students pursuing the degree in accounting have stronger academic records, MAF 640 is one being a good option to achieve differentiation. However, based on observations, most students fail to recognize this as the majority of them show lackadaisical attitude during lectures. Therefore, a case study method of teaching is utilised to prepare students to meet the conceptual challenges ahead.

The study described in this paper is designed to test the academic performance of a group of students in MAF 640 in handling a case study using different approaches. This paper compares the outcomes of using the Do It First method (DIF) with the cooperative traditionally taught group (CTG) approach to determine the more appropriate route to better learning.

The Study

The subjects of this comparative study were 30 students who are enrolled in MAF 640 for a given semester. The students are in the final semester, have completed the practical training program of the university, and are expected to complete their bachelor's degree in accounting. The primary objective of attending MAF 640 is to expose the student to the multifaceted functions of a chief executive officer of a company by using certain sets of strategic planning models. Given this high expectation, it is imperative that students possess higher level of critical and creative mind sets. In addition, conceptualisation of a given business scenario is vital to craft and implement suitable strategies in the view of bringing about sustainable competitive edge.

Prior to the case study, the students were taught the various fundamental models of strategic planning; local scenarios were highlighted to make them understand and appreciate the concept vis-a-vis the existing business complexities. To increase students' strategic exposure, they were required to read and submit English newspaper clippings fortnightly so as to make them more in tandem with the external business occurrences.

The instruction in the experimental activity included cooperative learning, brain storming to address multidisciplinary problems relating to internal and external business environmental issues, business strategy formulation and objective setting. It should be considered that the students are measured in reference to the scope of

the syllabus covered at a given period.

All members of the groups exhibit common knowledge and skills acquired from prior courses covered in the bachelor's accounting degree program. Computer literacy is reasonably above average. A guided procedures and contents are thoroughly discussed to ensure the students are at similar footings. A three-week allotted time was reasonable time prior to the final submission of the case study. The approach should be reasonable to expect reasonable to above average performance.

Background information of the subject was collected including demographic data, cumulative grade point average (CGPA), selected course grades, student self-evaluation and reaction to their educational experiences, positive attitude to performing assigned task, time taken to study the subject, and studying regularly. The hypothesis is that students in the CTG approach will learn better.

Profiles of the Samples

Table I shows the demographic data of the students where the majority are females (67%) with slightly higher distribution of students coming from small towns, FELDA villages, big towns and cities in that hierarchy. The finding shows that students with parental business background make up a slightly higher rate (33%) than those having parents with professional and non-professional background. Relatively, it could be deduced that majority of the students (77%) in MAF 640 have low exposure to business environment.

A test using chi-square of independence reveals that there is no significant association between parental background and the home community of the students as indicated by its p-value of 0.215.

Table I: Demographic Data
*Aggregate; + CGPA

Hometown:	(n=30)
Big town	23%
Small town	37%
FELDA village	33%
City	7%
Gender:	(n=30)
Male	33%
Female	67%
Parental Background:	(n=30)
Professional	27%
Business	33%
Government Service	23%
Farming	7%
Not working	10%
Academic Credentials:	(n=30)
SPM:* Less than 9	7%
Greater than 16	37%
Greater than 20	43%
Less than 24	13%
Diploma:+	(n=30)
Greater than 3.0	53%
Greater than 2.75	47%

Table I also highlights the academic credentials of the students and they have slightly better grades obtained in both 'Sijil Pelajaran Malaysia' and diploma course. This supports the claims mentioned earlier that students are academically prepared and are capable of overcoming the various level of difficulties inherent in the bachelor's accounting program. Nevertheless, subsequent findings indicate that the rate of failures and attritions still exists.

The accounting bachelor's programme is in principle a 5-semester course. Findings reveal that approximately 93% of the students could graduate within the prescribed time of 5 semesters as compared to diploma accounting students (85 %). The remaining 7% could complete their course in the 6th semester. Astonishingly, the level of dropout is zero as compared to the diploma level of 13% as shown in Table 2.

Testing the association of the students' CGPA performances in both diploma and bachelor's programmes, by using the chi-square test, a p-value of .832 is evident. It could be inferred that there is independence between the CGPA of the students in both courses. Thus, students who excel in their diploma program do not necessarily perform the same in the bachelors' programme.

Students' Plans, Concerns, Attrition and Self Academic Attributes

Table 2 shows a variety of tested issues relating to the plans, concerns, attrition and self attributes of the samples. The survey reveals that the majority of them have put accounting profession as their first choice (73%) and the same group of students plans to pursue professional qualifications (77%) for better job competitiveness.

Accordingly, the students' academic attributes have been tested. The results are shown in Table 2, which indicates that the students possess higher ratings in MAF 640, the course solely tested. The students have identical rates on all issues asked. But the results on few issues relating to reading habits are quite disturbing. For instance, only 17% of the students read their textbook, 63% read their manual (abridge textbook at local setting) and astonishingly some 67% of the students preferred to pass the course easily.

Table 2: Students' Plans, Concerns & Attributes

Career Advancement: (n=30)	
Is accounting education your first choice?	73%
Do you intend to pursue a professional course?	77%
Attrition:	
Is this the last semester of your course?	93%
Level of drop out	0%
Academic Attributes in MAF 640:	
Do you like the topics in MAF 640?	90%
Do you understand & appreciate the concepts?	87%
Does the lecturer explain the concept well?	90%
Do you read the manual before the lecture?	63%
Do you read the textbook and other related books?	17%
Do you like to read the English newspaper?	83%
Have you read the newspaper clippings before submitting them?	83%
Do you like to pass the course easily?	67%
Do you like the lecturer?	97%

Longitudinal Test on Students' CGPA

As part of the study, a longitudinal analysis of students' CGPA has been given focus to determine their academic progress as they advance their level of studies. The result is shown in Table 3, which relatively reveals that the number of students obtaining a CGPA of 3.0 points and above decreases as they advance into their program.

On the other hand, students earning a CGPA of less than 2.50 points remain static regardless of the semester they are in. This indicates that the level of difficulty of courses offered in the bachelor's accounting programme intensifies as the student progresses in their studies and that students who have not achieved better grades in the first semester would find it difficult to improve their CGPA. Majority of the students are in the second class upper (Table 3).

Based on specific identification method conducted, students who obtain a CGPA of 2.00 – 2.50 are those who are very active in extra-curricular activities of the university. Similarly, these groups are those students who will extend up to the sixth semester to complete the programme.

Table 3: Yearly Comparative Students' CGPA

CGPA	Yr 1	Yr 2	Yr 3
2.00 – 2.50	13%	17%	13%
2.50 – 2.75	17%	3%	13%
2.75 – 3.00	10%	30%	40%
3.00 – 3.50	60%	50%	33%

Part and parcel of the study analyses the effect of English language performance (BEL 460 and BEL 490) to some chosen accounting subjects such as FAR 500 and MAF 490. Findings show that students' English achievements / grades in BEL 460 has significant correlations with the students' performance / grades in MAF 490 and FAR 500 as indicated by the correlation coefficients of 0.786 and 0.827 respectively (Table 4). This shows that students who possess a good command of English are able to obtain identical grades in other core accounting courses. Students are able to conceptualize the issues and accordingly apply them appropriately. On the other hand, students who are deficient in English would find it difficult to perform well in their core subjects taking into consideration that the medium of instruction is English.

Similarly, the finding reveals that English language achievements / grades have significant correlations with the students' CGPA as shown in Table 4. It is noted that the correlation coefficient between these two variables (English grade and CGPA) is dependent on each other.

Specifically, there is a strong positive correlation in the students' performance in MAF 490 and their CGPA as indicated by its correlation coefficient of 0.825. This indicates that a student who excels in BEL 460 and MAF 490 would have good prospect of performing better in most core accounting subjects.

Table 4: Correlational Level of Accounting Course and English

COURSES / CGPA	Correlation Coefficient
BEL 460 & MAF 490	0.786
BEL 490 & MAF 490	0.457
BEL 460 & BEL 490	0.583
BEL 460 & FAR 500	0.827
BEL 490 & FAR 500	0.569
MAF 490 & FAR 500	0.657
BEL 460 & CGPA	0.725
FAR 500 & CGPA	0.643
MAF 490 & CGPA	0.825

Comparative Outcomes

Vital in the study, the cohort group was divided into 8 different groupings to undertake a given case study in MAF 640 to determine the significance of the student's progress by using both the DIF and CTG within a specific time period. The student's performance is measured based on the correct answers on each approach. The criteria being measured encompasses the written ability to conceptualize / analyze the case, correctness of content based on strategic planning models, appearance of the case report, time taken, ability to cooperate and lead and the grades earned.

Table 5 summarises the differences between the results of students' performance in both approaches. The finding indicates that student's performance in the CTG shows better mean values in all the tested issues as shown by its p-values of each tested issues.

Similarly, using Wilcoxon signed ranked test, the mistakes or wrong analytical rankings of the students in 5 issues tested items have been minimal except for crafting strategies where students need improvements as shown in Table 5. It indicates that there are still differences on the student's answers on issues relating to formulating strategies. Except for this issue, it could be inferred that students could analyze better the given case in CTG.

On the issue relating to the significance between the two tested approaches, it reveals that there is significant improvement between the performance of the students in CTG as shown by the p-values in Table 5 except for identifying the organizational strength and weaknesses as denoted by its p-value of 0.763.

Table 5: Statistical Outcomes between DIF and CTG

Issues	Wilcoxon Signed Ranked	Mean		Std Deviation		P-value
		CTG	DIF	CTG	DIF	
Identify the main problem	-2.646	1.63	1.87	.490	.346	.008
Searching the vision & mission	-2.646	1.77	2.00	.430	.000	.008
Setting of short & long term objectives	-3.464	1.47	1.87	.507	.346	.001
Identify opportunities & threats (General Environment)	-2.828	1.60	1.87	.498	.346	.005
Identify opportunities & threats (Industry Forces)	-2.000	1.67	1.80	.479	.407	.046
Classifying the strengths & weaknesses	-.3020	1.80	1.83	.407	.379	.763
Crafting strategy	-4.123	1.13	1.70	.346	.466	.000

Testing the hours spent outside class and the level of correct answers using Spearman coefficient of correlation shows that both variables have no correlations to each other. A coefficient of correlation of 0.216 denotes that these two variables have very low correlation. The findings further prove that the hours the students spent outside class denote a mean of 1.87 hours. Contrary to the reasonable workloads as discussed in subsequent section, a student spent more or less than two (2) hours of studying after lectures with most courses having reasonable workload as rated by most of them.

Using paired samples t - test with normal distribution of samples, it is inferred that the CTG significantly produces a higher mean of students' grades as compared to DIF with a confidence level of 90%. Students perform better in the CTG as indicated by its $t = 1.756$ and p value of 0.090.

Rating of the Accounting Courses

As part of the study, the students were asked to rate their level of preparedness for the identified courses. The rating is based on skills they obtained from the prerequisite courses. The results are shown in Table 4. The students are highly prepared in auditing course as compared to other courses and the worst prepared is corporate finance. The level of preparedness for these subjects varies greatly from one subject to the other. The study also discovers that students prefer to do their case study through cooperative learning as opposed to doing them alone as shown in Table 6.

Table 6: Students' Preparedness

How well you are prepared for?	Well Prepared
Auditing	80%
Corporate Finance	20%
Seminar in Accounting	43%
Strategic Management	60%
Preferred way of working on a case study/assignment:	
Myself	44%
Group	53%
Copy from others	0%

The students were also asked to rate the level of likeness, the course workload and their average time spent outside class each week. Using a 5-points Likert scale, the results are shown in Table 7. The study shows that the level of likeness amongst students, as shown by its mean values, varies with slightly more students liking Strategic Management (2.00), Auditing (2.10), Financial Reporting 3 (2.30), Corporate Finance (2.40) and Seminar in Accounting (2.43) in that order. But the majority of them belong to 'somewhat more' level of likeness in all the courses except a few students having 'somewhat less' level of likeness in Corporate Finance.

On the issue relating to workload, the students have identically rated all the four accounting courses as having reasonable workload (mean values slightly greater than 1) except for Strategic Management where the mean is almost 2.00. Although Strategic Management is rated as having a heavy workload (a mean of 4.45 hours per week as shown in Table 7), yet, 10% of the sample spend 9 to 16 hours per week in solving the case study. The course with the least mean hours spent outside class is Seminar in Accounting with a mean of 3.35.

The study also shows that there is no significant relationship between the workload and the number of hours

spent outside the class by the students as indicated by the p-values of the subjects - Corporate Finance is 0.582; Auditing, 0.653, Seminar in Accounting, 0.108; Financial Reporting 3, 0.472 and Strategic Management, 0.626.

Table 7: Student workload and hours spent outside class

How much do you like the subject?		
Subject/level of likeness	Mean	Std. Deviation
Corporate Finance	2.40	.855
Auditing	2.10	.759
Seminar in Accounting	2.43	.679
Financial Reporting 3	2.30	.702
Strategic Management	2.00	.743
How do you perceive the workload in these subjects?		
Subject/level of workload	Mean	Std. Deviation
Corporate Finance	1.23	.430
Auditing	1.27	.450
Seminar in Accounting	1.13	.346
FAR 500	1.33	.479
Strategic Management	1.93	.740
How many average hours per week do you spend outside your class?		
Subject/hours	Mean	Std. Deviation
Corporate Finance	3.87	2.03
Auditing	4.43	2.56
Seminar in Accounting	3.35	2.24
FAR 500	5.57	3.91
Strategic Management	4.45	3.20

Accordingly, the students were also asked to rate the quality of instructions, student’s friendliness, the support they get from their peers and the value of their investment on accounting education. The result is shown in Table 8. The students have more or less identically rated the quality of the course instructions and their investment in accounting education to be good with a mean of 2.83 and 3.03 respectively. This indicates that the student’s satisfaction in accounting education commensurate with their investment as indicated by its identical mode of 3. Similarly, most students rated students’ friendliness and peer support as good as shown by its mode of 3.

Table 8: Student Ratings of Their Education

Issues	Mean	Std. Deviation	Mode
Quality of instruction	2.83	.592	3
Student friendliness on campus	3.10	.548	3
Peer support	3.13	.776	3
Investment in accounting education	3.03	.615	3

Discussions and Conclusions

This study undertakes to link DIF and CTG learning methods to students’ performance. This segment discusses several inferences that can be drawn from the results highlighted in the previous sections and the lecturer’s observations.

The Bachelor’s Degree Students are able to Complete the Course within the Allotted Time Span.

This conclusion follows directly from Table 2 and with zero drops out. There are several inherent factors that support this performance where 73% of the students choose accounting education as the professional field of endeavour. Other factors such as students achieving a CGPA of less than 2.50 are reasonably minimal of 13%, and the quality of

accounting education is rated favorably good by the seniors. It is concluded that those students taking the bachelor's program are highly motivated with a higher aptitude to attain success. Consequently, none of the students have been put in probationary period.

CTG Develops Higher Critical and Creative Skills than DIF Learning Approach.

The CTG students have a higher percentage of correct analysis relative to the DIF group (Table 5) as indicated by its mean values. It could be concluded that students have been able to cast correct analysis on all the referred issues to the case. As the students are given practical application guidance, they are able to apply the concepts in a given situation more appropriately than those students in the DIF group.

The students' performance in the CTG is consistent with many other research studies of cooperative learning. In one study, significant higher grades were earned in cooperatively-taught subjects than in a traditionally taught course (Johnson et al. 1991). It could therefore be concluded that active and cooperative instructional method drive student conceptualization and application to a more advanced / higher level.

However, although students have been progressively exposed to too many complex situations in the prerequisite courses, they are still weak in handling issues that involve higher level of analytical scope. Thus, the role of lecturers is much needed to instill synergy and better learning among the students.

The profession needs successful graduates who are able to solve open-ended multidisciplinary problems; diagnose external and internal environment predictions, communication and motivate others to greater performance and interpersonal skills to work effectively in teams. Although this study partially tests the students' ability to work as a team (Table 6), it is interesting to note that the students have higher preferences to working in groups and show higher level peer support among them (Table 8). Thus, it could be concluded that the students are exposed to real and complex work assignment.

It could be further concluded in this study that students were able to adapt to wide differences of opinions among members of the group, match time schedules and they have the required sense of responsibility being in place to complete the program. Moreover, the students in the bachelor of accountancy acquired the basic framework to cope up with post graduation assignment with reasonable supervision in the field of their choice.

It is concluded that students who enjoy taking part in extra-curricular activities while in university are able to adapt themselves into the real work environment or post graduate life.

The Students Dysfunctional Academic Behaviour

This segment highlights some identified unusual findings from the students as shown in Table 2 where 37% of the students fail to read the manuals, 83% fails to read other required textbooks, and 67% prefer to pass easily. The researcher personally believes that students who belong to the first group would be very attentive during lecture hours to grasp fully the explanation of the lecturer. However, on topics where lecturers do not fairly explain the concepts and these topics come out during examination, then these groups of students would be in jeopardy. Alternatively, they would change their study approach, rely on peers during group brainstorming, otherwise their academic indicators would be at stake. The end result is joining the bandwagon of students with a CGPA of less than 2.50.

For those students who disregard reading other references, as the textbooks are not readily available locally, the students have access to many other textbooks in the library. Fortunately, the foreign authored textbooks are not really highly applicable in the local business scenario as the illustrations are based on foreign footings. In lieu, the students are required to read local English newspapers to keep abreast with the domestic business environment (Table 2). It is, therefore, imperative that lecturers produce manuals depicting local business environment scenarios. It is high time to create local illustrative mini cases that highlight business strategies and approaches given available core competencies.

Surprisingly, 67% of the students prefer to pass without much hardship. The level of difficulties among courses varies. Some courses have slightly heavier load for the students to undergo more so when case studies are the main teaching aid. On the positive note, the case study enables the students to apply the learned concepts into virtual and actual case scenarios where the students have not been exposed in their prior studies. Transferring of knowledge to students is not easy as they are expected to live with it in patience. Accordingly, the students would have been exposed to higher intellectual levels in preparatory to future professional accounting endeavour.

Regardless of student differing levels of likeness over the various accounting subjects (Table 7), they ought to exceptionally perform. They are to refrain from setting level of preferences in their courses. Treating each course fairly would drive students to creating an edge over the rest. A balanced attitude toward all the courses is highly demanded to attain competitive success.

An Observation of the Students in the Accounting Degree Program and the Lecturers of the Faculty of Accountancy in the Referred campus

As the lecturer of students, the researcher infers that adopting CTG in classroom based on the quantitative results offer added advantage to the students. The benefits they received encompass motivation to learn, retention, thinking skills, and enhanced self confidence. Based on her observations and backed up by the result of this study, the researcher could say that the students have tremendously improved their ability to recognise, identify and analyse relevant issues vital to solving the case study. They are able to critically figure out the impact of pertinent vital components of the case that demands cognitive understanding of multidisciplinary issues. The researcher is somehow proud of the learning progress they have developed and she is confident that this ability will help them in their post graduation life.

Further, the researcher could say the students themselves created their academic success and destiny. They could use the strategies they learned in classroom to aid them in their academic or non-academic activities like developing a habit of studying in groups (cooperative learning) and trying to pre-determine a highly probable question/case during the examination and deal with it. Identifying the components of an excellent answer and an example that could be used in cases where difficulty of illustrating a given concept arises would be an added advantage. Above all, an exceptionally outstanding student must be able to practice what he or she learns in classrooms in his or her daily life, in whatever circumstance, to maintain high retention of those concepts which most students missed.

The researcher has set out the outcomes of adopting the DIF and CTG approaches among selected bachelor students in the accountancy program. The researcher personally believes that repetitive use of proven methods in teaching and learning would lead to positive results in students' academic performances. However, this study is not free from limitations where the sample size is limited and the results are interpreted in a more specific manner. Thus, the result of the study could differ from others due to the nature of the course taught, the type and level of students and also the experience of the lecturer herself. As such, the result of this study is not binding to the others who use similar approach.

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