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STUDENT'S PERSPECTIVE ON OUTCOME BASED LEARNING IN HIGHER EDUCATION: A STUDY ON AN AUSTRALIAN OFFSHORE CAMPUS IN MALAYSIA

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Abstract: *This paper discusses the student's perception and understanding about the outcome-based learning and their awareness about the learning outcome of the units and its usefulness to a practical situation. This study also considers gender wise and department wise perception to understand the different aspects related to learning outcome. The study was carried out among 205 engineering and business students selected from all years of study in an Australian Offshore campus in Malaysia to determine students' perspective on outcome-based learning. Although majority of the students, irrespective of stream of study and gender, understand that unit outlines contain the learning outcomes, half of them reported having not read it at all. Majority of students read information about the unit, half of the students do not read information about lecturer and do not give importance to University graduate attributes which is explained in the unit outline. Almost all students tend to give importance to program schedule and calendar. The independent t test was used to understand different aspects of students' perspectives about leaning outcome and how they conceived it, gender wise and department wise. Results indicates that there is no difference in means score of male and female students in various aspects of learning outcome. No significant difference was found in attaining various aspects of learning outcome irrespective of the stream of study.*

Keywords: *Learning Outcome, Classroom Teaching, Conventional Teaching-Learning Approach, Learning Objectives*

Introduction

The competitive environment in higher education has increased the pressure on higher education institutions to provide quality teaching and learning to their students. To prove its quality and standard, higher education is witnessing a drastic change in the learning process. The stakeholders of the higher education institutions like prospective students, employers who need quality graduates, accreditation and resource allocation agencies are also demanding

information regarding the students learning outcome (Nusche, 2008). The quality of education can only be determined through the result that has been reached, namely the competence of the students to comprehend and achieve skills. Now the parents and students are not interested in knowing what an institution offer in terms of the facilities and infrastructure, moreover they are interested in knowing what the student is learning, how well did they learn, what the students can do with what they learned and what is the value of their qualification in the international labour market (Spady, 1988).

The outcome-based learning [OBL] education is an important terminology to improve the quality of higher education for everyone involved in learning and teaching. OBL, well known as a systematic approach to the learning process in higher education, is securing a high level of attention in learning spaces, especially in higher education. Outcomes describe what the student actually achieve, as opposed to what the institution intends to teach (Allan, 1996). Many academics and students do not differentiate between outcome-based learning and objective based learning [LBO]. They believe that learning outcome is the same as what they have already understood by the learning objectives. They also believe that both the learning outcome and learning objective are the same or learning objective is a type of learning outcome. The implementation of OBL is expected to increase the efficiency and effectiveness of higher education in Malaysia under the Malaysia's declaration about its qualifications and their quality in relation to its education system by the supervision of Malaysian Qualifications Agency (MQA). By implementing OBL, it is expected that the learning process may change from lecturer-oriented to the student's focused. It is expected that after completing the respective units, the students will attain the prescribed learning outcomes.

OBL, Is It A Myth Or Reality?

Outcome-based education is a result-oriented approach to education in which the curriculum is driven by the outcome that all students are expected to achieve on the completion of the unit. It is much different from objective based learning. OBL clearly explains what the lectures intend to cover in the class and learning outcome clearly lays down what the students will accomplish and do by the end of the unit/ course. The focus in the past often was on what the lecturers wanted to teach the students and how the infrastructure should be, so that learning can take place. The new approach, on the other hand, focuses on the question of learning and specifically on what students will be able to achieve as a result of the learning experience. The purpose of this is actually to teach students what they are eventually supposed to do. In the past, the quality of education was measured against the so-called input of lecturers and available infrastructure and amenities, but now there is currently a strong focus on the result, namely on the output. Outcome-based education does not specify educational strategies or teaching methods, rather it looks into what the students will learn or can do on the completion of his/her learning. In this system, it is the outcome that provides the framework for the student's assessment.

Outcome-based education is a top-down approach to education. The final outcome of the course is expected to lead to the identification of individual unit outcomes. The process of identification of the outcomes within an institution promotes discussion of the fundamental questions, as to what type of graduates are we aiming to train and what are the core issues. OBL improves education and helps to assess the quality of teaching and student learning in an effective way. OBL is defined as a process of "clearly focusing and organizing everything in an educational system around what is essential for all students to be able to do successfully at the end of their learning experiences. This means starting with a clear picture of what is important for students to be able to do, then organizing the curriculum, instruction and

assessment to make sure this learning ultimately happens"(Spady, 1988). The learners who have attained the learning outcome could replicate it when they need it in the workplace or day to day life. The higher education is accepting the new mantra of OBL education which has inhibited objective-based system. The new system addresses the learners than previous systems. The main aim of the OBL is to improve the quality in teaching, to change the mind-set of the teachers to objective based education, explore the linkage between learning and teaching and focus on lifelong learning. Many universities are introducing OBL to improve the quality of learning experience (Kirschner, Paas, Kirschner, & Janssen, 2011). Learning outcomes are the guidelines to the students and lectures and it has compelled to change the focus of higher education from traditional, objective-based learning. Therefore, it is widely believed that OBL is "student centred" approach than the lecture- centred approach. This is due to the fact that OBL may provide evidence of the student's ability to perform well after their study and to evaluate how programs, unit and the institute's ability of a student's learning process (Akir, Eng, & Malie, 2012; Lixun, 2011).

It is believed that the outcome-based learning is better than objective based learning. Although it is widely discussed and recognized, there are insufficient methods to evaluate whether the objective based learning process is well understood by students. It is believed that by the completion of each unit, students should attain the learning outcome of the respective unit. But it is not always true; the students may pass the units, without achieving the learning outcome. It is also believed that OBL is creating a better learning environment and students are more involved in the learning process and through that, attaining the learning outcome. The current study is intended to find out the effectiveness of students learning the process in achieving learning outcomes and to understand the students' perception of learning outcome.

Literature Review

Educational policymakers and educational practitioners are very keen about the implementation of outcome-based education (Hussey & Smith, 2008). Learning outcome is defined in the Australian quality frame work as 'the taxonomy of what graduates are expected to know, understand and be able to do as a result of learning' (Framework, 2013). Outcome-based education keeps learners as the focus of attention, while objective based education focuses on the lecturer. Objective based learning may not adequately prepare the students for workforce. This may be due to the fact that objective based learning does not help students to be as competitive enough in real life and the workforce as the Outcome Based Learning. Learning outcomes have the potential to improve course design and quality in higher education and hence enhances transparency, quality and productivity of future higher education. (Coates (Coates, 2015; Tam, 2014). By actively engaging the learning process and teaching styles play a role and helps the students to achieve the expected learning objective and outcome (Roji, 2018; Sunaryanto, 2018). The learning outcome tests students' knowledge in a subject and whether they know how to apply and relate that knowledge in a new, practical or abstract context. Students' learning outcome clarify the focus of the unit or course and explains the relationship between deep learning and a more highly desired outcome(Dolmans, Loyens, Marcq, & Gijbels, 2016). If the students do not attain the learning outcome upon the completion of the units, it shows that the students did not perform the deep learning, rather they may have had surface learning. The University-level learning should focus on a deep approach to learning and discourage surface learning. The surface approach may help the students to attain a grade/degree not the knowledge. It is possible that many academics may not be aware of it or may not have taken steps to address it. The academicians may know that there is a considerable variation between the unit learning outcome and the outcome students actually earned. Learning is something students are able to do, not something that is done to students(Biggs,

1999). Therefore, there is a chance that University level learning may have confined to surface approach learning than deep learning. This investigation will help us to find an answer to these two approaches. If the students agree that they attained learning outcome upon the completion of the unit shows that the students followed the deep approach to learning.

In literature, the distinction between OBL (Outcome Based Learning) and LBO (Objective-Based Learning) is not widely recognized and no researcher seems to have investigated if these approaches are understood by students. OBL is the statement of what students are expected to know, understand and is able to demonstrate or have achieved on successful completion of the unit. OBL is students oriented (Kirschner et al., 2011) while LBO is lecturer oriented approach. OBL embodies the philosophy that the best way to learn is to first determine what to be achieved (Kirschner et al., 2011; Moore, 1973). Once "desired" outcome is determined, process and means are put in place to achieve predetermined goals. (Wien & Dudley-Marling, 1998) pointed out that outcome-based learning omit the daily life of classrooms and offers a narrow, controlling vision of teachers and learners (G. Spady & J. Marshall, 1991) discussed a different version of Outcomes Based education in America namely traditional, transitional and transformational outcomes. He stated that transformational outcome education answers and equips all the students with knowledge, competence and orientation needed for success. (Shum, 2012) explained the relationship between students learning outcome and online learning design in Hong Kong Universities. They ascertain that online learning education contributes to achieving learning outcomes. (Galbraith, Merrill, & Kline, 2012)found that it is little or no affirm for the validity of student evaluation as a general indicator of teaching effectiveness or student learning. Previous studies have identified systematic differences in learning styles based on gender, however, the findings are not consistent with respect to the impact of gender on learning outcomes (Arbaugh, 2000; Barrett & Lally, 1999; Potter & Johnston, 2006).

The OBL has clearly identified what students should attain and focus on what they gain when they learn a unit. (Gosling, 2001) mentioned in his book that outcome-based approach is increasingly popular in an international level higher education and mentioned that national quality and qualifications authorities such as the QAA (Quality Assurance Agency for Higher Education) in the UK, the Australian, New Zealand and South African Qualification Authorities adopted the outcome based approaches in the university curriculum. Followed by educational innovation and recent interest of higher education on OBL, Malaysia is trying to transform its learning objectives pedagogy to learning the outcome-based system. In December 2005, Malaysian Higher education witnessed the emergence of Malaysian Qualification Agency (MQA), which focuses on quality assurance in higher education in Malaysia. The main scope of MQA is to conduct a quality audit on institutions and accredit programs and qualification. In this process of quality assurance, MQA always gives much importance to the OBL (Agency, 2017). They expect that higher education in Malaysia should be based on OBL learning process. The various quality and qualifications processes in Malaysia emphasise the importance of learning outcome in higher education.

Theoretical Framework

At present scenario in higher education, most of teachings focus on cognitive skills of learning and knowledge rather than surface learning. (Bloom, 1956) discussed the mainly three set of hierarchical learning at a different level and learning is effective when analysing and evaluating concepts, processes, procedures, and principles, rather than just remembering the fact. They laid the foundation for the outcome-based learning which tremendously changed the objective based learning. Different theoretical perspectives of learning approaches have enriched the importance of the learning process. The most definitive theories of learning are behaviourism,

cognitivism and constructivism. The principles of behaviourism postulate that the learning is explained as a response to external stimuli and learning environment is the most crucial factor contributing to learning (Fautley & Savage, 2008). While cognitivism strongly opposes the concept of external stimuli stipulated by behaviourism and focused on promoting cognitive operations. While cognitivism strongly opposes the concept of external stimuli stipulated by behaviourism and focused on promoting cognitive operations such as how information is received, organized, stored, and retrieved by the mind. Nevertheless, behaviourism and cognitivism underline the importance of instructions and correcting mistakes are the meaning of learning(Ertmer & Newby, 2013). The constructivism is the concept in which the mind filter the input from the world and produce its own interpretations of our experiences and it is always ready to change(Jonassen, 1991).

Methodology

This study aims to understand the student's perception and understanding of the outcome-based learning. It also aims to know whether the introduction of the concept of OBL helps the student's learning process. The primary question of this study is as follow: Do students understand the concept of learning outcome strategies?

A questionnaire survey was used to collect information to test the hypotheses. Since the respondents were required to have specific knowledge about the outcome learning and unit outline of the subjects which they have enrolled. Therefore, this study focused only on the students of Australian offshore campus in Malaysia as respondents of this research where University is following outcome-based strategies. Participants were 205 undergraduate students from offshore campus in Malaysia. Responses were anonymised and the frequency of answers to questions were analysed and reported as 'number of responses' and 'the percentage of the total number of responses' for each question. The sample had almost equal proportion of male and female respondents. The population includes engineering and business students. The sample size gives equal weight to both streams. Furthermore, for more clarity, the sample is collected from all years of study and we give more weight to the final year student's sample because final year students can contribute more information about the learning process. All the respondents were informed about the objectives and purposes of the study, and they provided written approval. Each respondent is asked to respond to a series of questions in all sections of the survey. The study proposes to ask students themselves, whether they are aware of the learning outcome of the units and whether they had attained the learning outcomes as described in the unit and whether they could make use of the knowledge gained in a similar practical situation. None of the existing studies have looked into the matter from the student's point of view. This investigation proposes to fill in the existing gap in research in this area. Items statements in the variables sections are measured as subjective estimates using a five-point Likert scale (with 1 = strongly disagree and 5 = strongly agree).

The study proposes to investigate whether the students are achieving learning outcomes after the completion of the unit. The total mark attained in a unit may not be conclusive evidence to know whether students attained learning outcome or not. Attaining the learning outcome is a challenge to the student and in this way, OBL approach is different from the traditional LOB approach.

Attaining mark itself is not a sufficient measure of attainment learning outcome, whereas when students understand learning outcome and are able to use it in similar situations, a learning outcome is said to be attained. If this is not said to be possible, the hypothesis might be discarded.

Attaining learning outcome is more complicated than scoring marks. Attaining learning outcome necessitates understanding learning outcome and using it for a similar situation or it can be used in the workplace. A task this complicated might not be attained only by scoring marks. That eventually necessitates understanding the learning process of students. We look at the students learning the process and we can see how different learning processes help students to attain learning outcomes. These milestones include, whether the students have read the learning outcomes, how they understand it etc.

In this background, we propose the following hypothesis: -

Hypothesis
Both gender-wise and stream of study wise (engineering and business students) attain the learning outcome.

The hypothesis helps to find out the students' point of view of Learning outcome and whether they attained it. The literature lays down that when students score marks and do not attain learning outcomes; it may be because of surface learning. If the students are attaining the learning outcome, the deep approach to learning might have been adopted by the students and lectures. So, if learning outcome is not attained, it could be concluded that even though all units and courses emphasise the importance of attaining the learning outcome, the curriculum development and the learning process is not appropriate enough to attain the learning outcome. So, if learning outcome is not attained, it could be concluded that even if all courses and unit outlines stress the importance of attaining the learning outcome, the learning process and curriculum development are not appropriate to address the whole aim.

The study encompasses almost all aspects of the learning process, and none of the existing studies have attempted to answer these issues which persist in education.

This study does not only use descriptive statistics but also propose to use an independent sample test to assess whether students have achieved learning outcomes. The independent sample t-test is a hypothetical test for answering the question about the meaning, where the data are a random sample of independent observations from an underlying normal distribution where $\sigma 2$is unknown (Pollak & Cohen, 1981). This helps us know whether students have achieved the learning outcome, or not. The study uses independent t-test as students from two different academic majors are taken into consideration, business and engineering. The research examined the relationship between academic major and how it is contributing to the learning outcome. This helps us know how students from these two academic disciplines understand learning outcome, and whether they think about learning outcome differently. An independent t-test is a hypothesis test for answering about mean where the data are collected from two random samples of independent observations, each from an underlying normal distribution $[\mu i \sigma i 2]$ where i = 1,2.
Ho = $\mu 1 = \mu 2$
H1 = $\mu 1 \neq \mu 2$

Using the same independent t-test, the study also tests how gender views the learning outcome. Similarity/attraction theory posits that people like and are attracted to others who are similar, rather than dissimilar, to themselves. (Ozogul, Johnson, Atkinson, & Reisslein, 2013) compared the gender of the students with a positive impact on learning outcomes or student perceptions.

The study also tries to look at how the experience of academic duration or the study period with university students affects the attainment of learning outcome. Students may get experienced with OBL approach teaching and study periods at university which may help the students to attain the learning outcome than fresher's in the university. The two-sample t-test is the method used to test this aspect also. This test seems the most suitable test this aspect too. (David, 2007) claimed that an academic institution with the organizational capacity for a sustained focus on student learning outcomes can become significantly better than what it would otherwise be.

Findings

This research tried to understand the student's perspectives about learning the outcome. It is expected that the students are supposed to attain the learning outcome after completing the unit. This study mainly focused on the stream of studies, such as the faculty of business students and faculty of engineering students and the gender of the students.

Table 1 provides an overview of descriptive statistics of a survey conducted to understand the student's perspective about the learning outcome. 45% male and 55% female students participated in the research. 52% of students are from the faculty of business and 48% belongs to the faculty of engineering. Out of these, male students from both faculties of Business and Engineering are 41% and 59% respectively. 61% and 39% female students from both faculty of business and faculty of engineering respectively participated in the survey.

Table 1: Course Students Enrolled – Faculty Vs. Gender

	Frequency		**Percent**
Faculty of Business	107		52.2
Faculty of Engineering	98		47.8
Total	205		100.0
Gender		**Frequency**	**Percent**
Male	Faculty of Business	38	41.3
	Faculty of Engineering	54	58.7
	Total	92	100.0
Female	Faculty of Business	69	61.1
	Faculty of Engineering	44	38.9
	Total	113	100.0

Table 2 shows that 44% of students from 1st year and 25% enrolled for 2nd year and 18% of 3rd year and 13% of students from 4th year have participated in the survey. The 4th year students are from the faculty of Engineering because the duration of the course is 4 years. 39% of the students from the first year, 25% from the second year, 21% from the third year and 15% from the fourth year have participated in the survey. In the case of female students' participation, this percentage are 49%, 25%, 16%, 11% respectively.

Table 2: Year of Enrolment and Gender

	Year	Frequency	Percent	Cumulative Percent
	1st year	91	44.4	44.4
	2nd year	51	24.9	69.3
	3rd year	37	18.0	87.3
	4th year	26	12.7	100.0
	Total	205	100.0	
Gender		**Frequency**	**Percent**	**Cumulative Percent**
Male	1st year	36	39.1	39.1
	2nd year	23	25.0	64.1
	3rd year	19	20.7	84.8
	4th year	14	15.2	100.0
	Total	92	100.0	
Female	1st year	55	48.7	48.7
	2nd year	28	24.8	73.5
	3rd year	18	15.9	89.4
	4th year	12	10.6	100.0
	Total	113	100.0	

Table 3 compares the students understanding about whether unit outlines contain the learning outcomes. Overall 84.4% of students confirmed that the unit outlines contain the learning outcomes and 15.6% students answered against. Overall 82.6% male students and 85.8% female students believe that unit outlines contain the learning outcomes. The unit outlines contain learning outcome comes to the subject level, it is found out that 86.9% students in the faculty of business and 81.6% in the faculty of engineering students know that the unit outlines contain the learning outcome. This analysis shows that the absolute majority students overall, gender and faculty-wise believes that unit outlines contain learning outcomes.

Table 3: The Unit Outlines Contain Learning Outcomes

Total		**Frequency**	**Percent**
	Yes	173	84.4
	No	32	15.6
	Total	205	100.0

Gender		**Frequency**	**Percent**
Male	Yes	76	82.6
	No	16	17.4
	Total	92	100.0
Female	Yes	97	85.8
	No	16	14.2
	Total	113	100.0

Course enrolled- faculty wise		**Frequency**	**Percent**
Faculty of Business	Yes	93	86.9
	No	14	13.1
	Total	107	100.0
Faculty of Engineering	Yes	80	81.6
	No	18	18.4
	Total	98	100.0

Table-4 describes whether the students read all the unit outlines for the courses they enrolled in. 64.9% of students say that they read all the unit outlines for the courses they enrolled, and 35.1% students enunciate that they don't read the all unit outlines for the courses they enrolled currently. 45.1 % male students confirm that they read it and 44.4% male students say that they don't. 54.9% of female students confirmed that they read the unit outlines for all the units they enrolled, and 55.6% female students described that they don't read it. 54.9 % faculty of business students and 45.1 % faculty of engineering students indicate that they do read unit outlines of all enrolled units and 47.2% and 52.8% students respectively say that they don't read the unit outlines for all units they enrolled.

Table 4: Students Read Unit Outline for All Units Enroll In

Total		Frequency	Percent
	Yes	133	64.9
	No	72	35.1
	Total	205	100.0
Gender		**Frequency**	**Percent**
Male	Yes	60	45.1
	No	32	44.4
	Total	92	100.0
Female	Yes	73	54.9
	No	40	55.6
	Total	113	100.0
Course Enrolled- Faculty Wise		**Frequency**	**Percent**
Faculty of Business	Yes	73	54.9
	No	34	47.2
	Total	107	100.0
Faculty of Engineering	Yes	60	45.1
	No	38	52.8
	Total	98	100.0

Table 5 depicts the student's perspective about unit outlines provide all information related to the unit. The table shows that 68.8% believes that unit outline provides all information needed for the unit and 31.2% students believe that unit outlines don't provide all the information related to units they enrolled. 40.4% male students conceive that unit outlines do provide all information related to the units and 54.7% don't. 59.6% of female students believe that they do get all information from the unit outline and 45.3% of female students are doubtful whether all information related to the unit can be found in the unit outlines. Subject wise, 55.3% faculty of business students and 44.7% faculty of engineering students respectively think that they get all information related to the unit from unit outlines and 45.3% faculty of business students and 54.7% faculty of engineering students assume that they don't.

Table 5: The Unit Outline Provides All The Needed Information About Unit

		Frequency	Percent
	Yes	141	68.8
	No	64	31.2
	Total	205	100.0

Gender		Frequency	Percent
Male	Yes	57	40.4
	No	35	54.7
	Total	92	100.0
Female	Yes	84	59.6
	No	29	45.3
	Total	113	100.0

Course Enrolled- Faculty Wise		Frequency	Percent
Faculty of Business	Yes	78	55.3
	No	29	45.3
	Total	107	100.0
Faculty of Engineering	Yes	63	44.7
	No	35	54.7
	Total	98	100.0

Table 6-13 presents the main details they read and understand from the unit outlines. A comparison between male, female students and faculty-wise conducted. This analysis will give us a clearer picture of how students utilise the unit outlines and learning outcome in their learning process. In Table 6 indicates whether students read more about the unit they enrolled. 80.4% male and 85.8 female students confirm that they read information about the unit they enrolled, and 19.6% male students and 14.2% female students stated that they don't read much information about the unit they enrolled. 83.2% faculty of business students and 83.7% faculty of engineering student's states that they do read all information about the unit and meantime 16.8% faculty of business and 16.3% faculty of engineering students affirm that don't.

Table 6: I Read Information about Unit

Gender		Frequency	Percent
Male	Yes	74	80.4
	No	18	19.6
	Total	92	100.0
Female	Yes	97	85.8
	No	16	14.2
	Total	113	100.0

Course Enrolled- Faculty Wise		Frequency	Percent
Faculty of Business	Yes	89	83.2
	No	18	16.8
	Total	107	100.0
Faculty of Engineering	Yes	82	83.7
	No	16	16.3
	Total	98	100.0

Table 7 discuss whether students read information about the lecturer from unit outlines and 50% of male and 57.5% female students stated that they do read information about the lecturer and 56.1% faculty of business and 52% faculty of engineering students expressed that they do read information about the lecturer. 50% female and 42.5% female students and 43.9% faculty of business and 48% faculty of engineering students stated that they do not read much information about the lecturer concerned. This could negatively affect the cordial relation between the students and lecturer.

Table 7: Information about The Lecturer

Gender		Frequency	Percent
Male	Yes	46	50.0
	No	46	50.0
	Total	92	100.0
Female	Yes	65	57.5
	No	48	42.5
	Total	113	100.0

Course Enrolled- Faculty Wise		Frequency	Percent
Faculty of Business	Yes	60	56.1
	No	47	43.9
	Total	107	100.0
Faculty of Engineering	Yes	51	52.0
	No	47	48.0
	Total	98	100.0

Table 8 discuss whether students read information about the Curtin graduate attributes which is directly linked to the learning outcome and course outcome. It is interpreted that 26.1% male students and 17.7% female students and 18% faculty of business students and 26.5% says that they do read more information about the University graduate attributes. Interim, 73.9% male and 82.3% female students and 83.2 % faculty of business and 73.5% faculty of engineering students answered that they don't give much attention to University graduate attributes. One reason could be that the students may fail to link the graduate attributes and unit outcome and their learning process.

Table 8: Information about the Curtin Graduate Attributes

Gender		Frequency	Percent
Male	Yes	24	26.1
	No	68	73.9
	Total	92	100.0
Female	Yes	20	17.7
	No	93	82.3
	Total	113	100.0

Course Enrolled- Faculty Wise		Frequency	Percent
Faculty of Business	Yes	18	16.8
	No	89	83.2
	Total	107	100.0
Faculty of Engineering	Yes	26	26.5
	No	72	73.5
	Total	98	100.0

Table 9 and Table 10 discuss how students utilise the unit outline to understand assessment and program calendar respectively. 73.9% and 69.6% male and 76.1% and 68.1% female students reveal that they read all information about the assessment schedule and program calendar of the unit.

Table 9: Assessment Schedule

Gender		Frequency	Percent
Male	Yes	68	73.9
	No	24	26.1
	Total	92	100.0
Female	Yes	86	76.1
	No	27	23.9
	Total	113	100.0

Course Enrolled- Faculty Wise		Frequency	Percent
Faculty of Business	Yes	81	75.7
	No	26	24.3
	Total	107	100.0
Faculty of Engineering	Yes	73	74.5
	No	25	25.5
	Total	98	100.0

26.1% and 30.4% male and 23.9% and 31.9% female students stated that they do not read extensively the assessment and program calendar of the unit they have enrolled. 74.5% and 75.7% faculty of business and engineering students respectively argue that they are keener about the information about the assessment schedule and program calendar of the units they have enrolled.

Table 10: Program Calendar

Gender		Frequency	Percent
Male	Yes	64	69.6
	No	28	30.4
	Total	92	100.0
Female	Yes	77	68.1
	No	36	31.9
	Total	113	100.0

Course Enrolled- Faculty Wise		Frequency	Percent
Faculty of Business	Yes	73	68.2
	No	34	31.8
	Total	107	100.0
Faculty of Engineering	Yes	68	69.4
	No	30	30.6
	Total	98	100.0

RQ: Does gender or the stream of study create a significant difference between various aspects of learning outcome? Above mentioned research question was tested at different levels and it is presented in table 11 and table 12.

The analysis is conducted on hypotheses to understand how male and female students differ in their understanding of different aspects related to the learning outcome. This was investigated and the results of the t-test for different student's perspectives on the learning outcome are presented in Table 11. The study results are consistent, and results show that there is no much difference in the mean score of male students and female students of both business and engineering.

An independent t-test was conducted to determine if the difference between the mean of responses to whether unit outline contains the learning outcome for both male and female students who were enrolled in an undergraduate course of both business and engineering. The result of Leven's test $F(205) = 1.60$, $p = .21$ indicated that the variance of the two populations is assumed to be approximately equal. Therefore, the standard t-test results were used. The results of the independent t-test were not significant, $t(203) = .63$, $p = .53$, indicating that there is no significant difference between the scores of male students ($M = 1.17$, $SD = .38$ $n = 92$) and scores of female students ($M = 1.14$, $SD = .35$, $n = 113$). The 95% confidence interval for the difference between the mean was -.07 to .13. The study failed to reject the null hypothesis. This means that there is no difference between male and female students regarding the unit outlines contains the learning outcome.

There was no significant difference in mean scores for "unit outlines provide all the information about the unit" among male and female students. The result of Leven's test $F(205) = 13.10$, $p = .00$ indicated that the variance of the two population is not assumed to be approximately equal. The results of t-test were not significant, but close to 05 significant level, $t(195) = 1.91$, $p = .06$, indicating that there is no significant difference between scores of male students ($M = 1.38$, $SD = .49$, $n = 92$) and scores of female students ($M = 1.26$, $SD = .44$, $n = 113$). The 95% confidence interval for the difference between the mean was -.00 to .25. The result shows that there is no difference between male and female students with respect to unit outlines provide all the information about the unit. The t-test conducted for a number of factors (see Table-11)

and found out that there is no significant difference in all the students' perspective, gender-wise.

Table 11: Results of *t*-Test of Male And Female Students' Perspective about Learning Outcome

	Male		Female			95% CI for Mean			
Outcome	**M**	**SD**	**M**	**SD**	**n**	**Difference**	**r**	**t**	**df**
Contains learning outcomes	1.17	.38	1.14	.35	205	-.07, .13	.53	.63	203
Provides all the needed information about the unit	1.38	.49	1.26	.44	205	-.00, .25	.06	1.91	185
I read the unit outline for all the units	1.35	.48	1.35	.48	205	-.14, .13	.93	-.09	194
Information about the lecturer	1.50	.50	1.42	.50	205	-.06, .21	.29	1.07	203
Learning outcome	1.51	.50	1.45	.50	205	-.08, .20	.40	.85	203
Information about the University Graduate Attributes	1.74	.44	1.82	.38	205	-20, .30	.15	-1.44	181
Learning Activities	1.36	.48	1.24	.43	205	-.00, .26	.06	1.86	184
Learning resources	1.43	.50	1.33	.47	205	-.03, .24	.12	1.58	190
Assessment schedule	1.26	.44	1.24	.43	205	-10, .14	.72	.36	203
Program Calendar	1.30	.46	1.32	.49	205	-.14, .12	.83	-.22	203
I find the unit outline useful	1.08	.27	1.12	.32	205	-12, .04	.35	-.93	203
I am satisfied with the unit outline of the respective units	1.12	.33	1.08	.27	205	-.04, .12	.34	.96	203

Table 12 analyses number of hypothesis to understand how business and engineering differ in their perspective related to the learning outcome. Table 12 shows the result for the difference in student's perspectives that influence the learning outcome.

An independent t-test was carried out identifies the difference between the mean of different factors that influence learning outcome for business students and engineering students. For example, the result of Levine's test $F(205) = 4.35$, $p = .038$ indicates that the variance of the

two populations is assumed to be approximately not equal. Therefore, the standard t-test results of equal variances not used. The results of the independent t-test were not significant, t (203) = 1.32, p = .19 indicating that there is no significant difference between the scores of the department of business (M = 1.27, SD = .45, n = 107) and scores of the department of engineering. The 95% confidence interval for the difference between the mean was -.21to .04. The study failed to reject the null hypothesis. This means that there is no difference in the faculty of business and faculty of engineering in terms of unit outlines provides all the information about the unit. The t-test was conducted for different student's perspectives with the faculty of business and engineering students (Table-12) and was found that there is no significant difference in the score for faculty of business and faculty of engineering students in terms of various factors related to unit outlines. This confirms the consistency of result in various aspects related to student's perspective about learning the outcome.

Table 12: Results of *t*-test of Faculty Wise Students' Perspective about Learning Outcome

	FOB		FOE			95% CI for Mean			
Outcome	**M**	**SD**	**M**	**SD**	**n**	**Difference**	**r**	**t**	**df**
Provides all the needed information about the unit	1.27	.45	1.36	.48	205	-.21, .04	.19	-1.32	198
Contains learning outcomes	1.13	.34	1.18	.39	205	-.15, .05	.30	-1.03	193
I read the unit outline for all the units	1.17	.38	1.16	.37	205	-.14, .13	.19	-.10	194
Information about the lecturer	1.44	.50	1.48	.50	205	-.18, .10	.57	-.58	203
Learning outcome	1.46	.50	1.50	.50	205	-.18, .10	.55	-.60	203
Information about the University Graduate Attributes	1.83	.38	1.73	.44	205	-18, .21	.10	-1.69	181
Learning Activities	1.25	.44	1.34	.48	205	-.21, .04	.19	-1.32	197
Learning resources	1.36	.48	1.39	.49	205	-.18, .11	.73	-.34	203
Assessment schedule	1.24	.43	1.26	.44	205	-13, .11	.84	-.20	203
Program Calendar	1.30	.46	1.32	.49	205	-.12, .14	.86	-.18	203
I find the unit outline useful	1.11	.32	1.08	.28	205	-05, .11	.46	.73	203
I am satisfied with the unit outline of the respective units	1.10	.31	1.09	.29	205	-.07, .09	.79	.26	203

Discussion

This research tries to understand the student's perspectives about learning the outcome. It is expected that the students will attain learning outcome after completing the unit. This study mainly focused on two streams of study, such as the faculty of business students and faculty of

engineering students and gender-wise. 45% male and 55% female students from both faculty of business and engineering and 52% faculty of business and 48% faculty of engineering students participated in the survey.

Altogether 84.4% of students agree that unit outlines contain learning outcome and 82.6% male students, and 85.8% female students believe this too. 86.9% of students in the faculty of business and 81.6% faculty of engineering students confirm that unit outlines contain the learning outcome. Majority of students irrespective of faculty and gender understand that unit outlines contain the learning outcome. Notwithstanding, 35.1 % of students pointed out that they don't read the learning outcome even the majority of the students knows that learning outcome stated in unit outline. These statistics were reconfirmed gender and faculty wise. 44.4 % for male students and 55.6% female students and 47.2% and 52.8% students in the faculty of business and faculty of engineering respectively do not give more importance to read the learning outcome. This shows that even students know that the unit outline contains learning outcome, but half of them irrespective of gender and faculty, do not bother to read it. Further, 68.8% believes that unit outline provides all the information needed for the unit, meantime, 40.4% male students and 45.3% female students doubts whether all information related to unit can be found in the unit outlines and 45.3% faculty of business and 54.7% faculty of engineering students assume that unit outline don't have all information.

It is very promising to know that 80.4% male and 85.8 female students get all information about the unit from the unit outline. This is very consistent faculty wise as well, 83.2% faculty of business students and 83.7% faculty of engineering student's pointed that they read information about the unit. Nevertheless, this consistency did not follow for information about the lecturer. It is found out that 50% of male and 57.5% female students and 56.1% faculty of business and 52% faculty of engineering students ascertain that they do not read information about the unit. It is very surprising to understand that even though the majority of students read the information about the unit, half of the students do not read information about lecturer. The students are given very less importance to read the university graduate attributes. 73.9% male and 82.3% female students and 83.2 % faculty of business and 73.5% faculty of engineering students substantiate the don't bother much about University attributes. It is expected that students do not feel that it is important to read the university attributes as it does not directly contribute much in their learning.

The independent t-test was used to understand different aspects of students' perspectives about learning outcome and how they conceived it and whether there is any difference between genders and departments to understand the different aspect related to the learning outcome. Several comparisons were made using the independent t-test. Mean scores of males and females were compared, also the mean score of students based on the faculty currently enrolled. These comparisons included mean scores for student's perception about unit outline contains the learning outcome, unit outline provide all information about the unit, students read unit outline for all units, information about the University graduate attribute, learning activities, learning resources, assessment schedule, program calendar, students find unit outline useful and students satisfied with the unit outline of respective units. No significant differences were found between these male and female students and faculty of business and faculty of engineering students in any of the aforementioned categories. The only close variable to being significantly different was whether unit outline provides all the information about the units and the rest of the results indicates that there is no difference in means score of male and female students in various aspect of learning outcome.

In the case of departments such as the faculty of business and faculty of engineering students, the same aspects of learning outcome tested by using the independent t-test. The results show that there is no significant difference between faculty of business and faculty of engineering in various aspects related to unit outline. This shows there is no difference in the case of attaining the various aspects of learning outcome irrespective of the faculty of business and faculty of engineering.

Nevertheless, the findings are important on several counts. The fact that, on average, irrespective of gender or faculty wise the students know that there is learning outcome crafted well in the unit outline, but the students, again do not spend much time or focus to read and understand it, which could have helped them more in their learning process and attain the learning outcome. This result is consistent irrespective of male or female students or faculty of business or faculty of engineering students.

Conclusion

Reading and understanding unit outline is very important in the OBL strategies because the entire learning plan rests on the understanding of the unit outline. Most of the students, irrespective of faculty and stream of study, understand that unit outlines contain the learning outcome, but it is of considerable concern that around 50 percent of the students do not read the unit outline. The analysis shows that this attitude is consistent across students in all streams of study and gender. Even when the students read information about the unit, they impart less effort to understand more about the lecturers and University graduate attributes which are very important for their learning process to be able to convert students to employee ready graduate. This trend is consistent with all students, irrespective of gender and students in the faculty. The result shows that students are very practical, and they give importance to read the information related to program calendar, schedule. These results are also consistent with gender and subject wise perspectives.

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