

# Perceptions towards the Usage of Collaborative Learning in Teaching and Learning Processes at Malaysia Polytechnic.

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**Abstract** — It is difficult for a graduate to get employed, due to fierce competition within today's career market. Most employers are primarily looking for good soft skills over academic achievements as selection criteria for selecting new employees. This paper shares the preliminary findings on the perceptions of students and lecturers on the use of Collaborative Learning in teaching and learning processes at Malaysia Polytechnic. In this study, two sets of questionnaires were distributed to 145 lecturers and 356 diploma students from Politeknik Ibrahim Sultan, Politeknik Merlimau, Politeknik Tuanku Syed Sirajuddin, Politeknik Kota Kinabalu, and Politeknik Sultan Idris Shah. All collected data was analysed using SPSS 19 software. The results show that even though lecturers used the collaborative learning method in their teaching and learning processes, the evaluation was only on the output product. The students felt that it was unfair for all members to get the same marks, and that the lecturers should award marks based only on the student's contribution. Therefore, the development of soft skills will not happen if active collaboration does not occur.

**Keywords** — Collaborative Learning (CL), Employability, Soft skills

## I. Introduction

Soft skills are particular abilities that can improve employment performance and career prospects. Soft skills are defined by [1] as 'skills, abilities and traits associated with personality, attitude and behaviour, and different from skills in the form of formal or technical knowledge'. Meanwhile, Hurrell [2] defines soft skills as 'involving interpersonal and intrapersonal abilities to facilitate the performance of control in certain contexts'. Harvey et.al [3] and Ahmad et.al [4] propose that employability assets consist of knowledge, skills, and attitudes. Most employers are primarily looking for good soft skills over academic achievements as selection criteria for selecting new employees. Twenty-first century learning skills require collaboration, communication, problem solving, and critical thinking skills that need to be controlled by HEIs graduates.

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Polytechnic Education Malaysia offers technical and vocational courses for school leavers and certificate holders from polytechnics and community colleges. Polytechnics produce semi-skilled workers in service, engineering, and commerce sectors, to meet the demands of public and private sectors. The number of applicants to polytechnics, as evidenced by the growing number of Certificate of Education (SPM) graduates, is increasing annually. However, according to the findings of a Graduate Tracer Study in 2012, obtained from the Department of Polytechnics, shows that only 46.42% of former students are employed, while the remaining 53.58% continue to be unemployed. For employed graduates, only 18.39% obtained jobs relative to their respective fields, 15.71% obtained jobs not relative to their respective fields, 7.85% were waiting for job placement, 3.07% were continuing their studies to the next level, and 1.40% graduates became entrepreneurs (Refer **Error! Reference source not found.**).

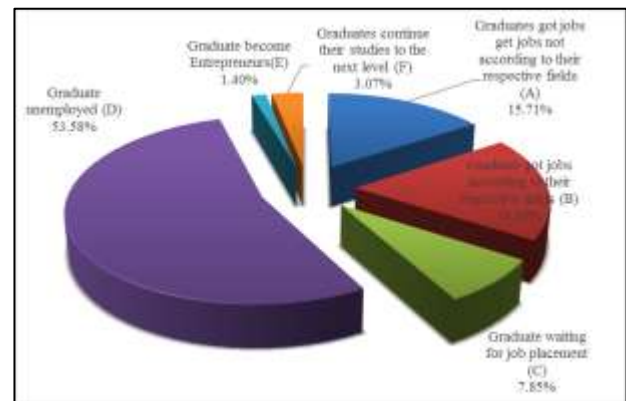


Figure 1: Malaysian Polytechnic Graduates Employability data (Source: Graduate Tracer Study, 2012)

Unemployed graduates have become a cause for concern in Malaysia. Research by [5] to collect feedback from industries, shows that Malaysia polytechnic students do not meet the levels of competency and working attitudes expected by them. Several interview sessions were made with program heads from Politeknik Ibrahim Sultan, Politeknik Merlimau, Politeknik Tuanku Syed Sirajuddin, Politeknik Kota Kinabalu, and Politeknik Sultan Idris Shah, to view the main factors of unemployed graduates. Responses received were as follows:

“Personally, I see the importance of soft skills in complementing academic excellence today. But students who have great soft skills will surely find employment, although not getting good academic results.”

(Lecturer 1)

“Soft skills factor”

(Lecturer 2)

“Soft skill and individual factors themselves”

(Lecturer 3)

All respondents agreed that ‘soft skills’ was the main factor for why graduates were unemployed.

Having excellent academic skills still does not guarantee that a graduate gets a job, due to the fierce competition in the career market today. Academic achievements are not the primary criteria for getting a job, because most employers are looking for good soft skills in order to select new employees. Public opinion often refers the failure of graduates getting employment to them not having the soft skills required by employers. Soft skills are deemed as being highly attractive skills in industry. Therefore, the role of Higher Education Institutions (HEIs) is to provide training to students with soft skills being in accordance with job demands.

Interest in collaborative learning has become the latest trend in education towards active learning; where students actively engage in building their knowledge through discovery, discussions, and expert guidance. Collaborative learning is a learning approach, which leads to the theory of constructivism [6], has been used as a learning strategy practiced worldwide for many years [7]. According to [8], learning tends to be most effective when students are in the position to work collaboratively in expressing their thoughts, discussing and challenging ideas with others, and working together towards a group solution to a given problem. Research has shown that undergraduates improve their academic performance by interacting with their peers [9].

Today, the benefits of collaborative learning are widely acknowledged. However, as previously discussed, graduates still lack the soft skills that are demanded by employers. Therefore, this study aims to gather information on the perceptions of students and lecturers, on the use of Collaborative Learning in Malaysia Polytechnics.

## II. Materials and Methods

In this study, two sets of questionnaires (for students and lecturers) were carried. According to Cohen and Manion in [10], surveys are utilized to obtain data at a certain time, often using questionnaires. Therefore, the researchers chose to distribute two sets of questionnaires to each respondent, in order to obtain feedback more easily. Lecturer’s questionnaire contained 23 questions, and student’s questionnaires contained 19 questions. The questionnaires were constructed and modified based on questionnaires used by [11], [12]. The questionnaires were distributed personally to 145 lecturers and 356 diploma students from Politeknik Ibrahim Sultan, Politeknik Merlimau, Politeknik Tuanku

Syed Sirajuddin, Politeknik Kota Kinabalu, and Politeknik Sultan Idris Shah. Respondents were randomly selected, in order to collect information for this research. SPSS 19.0 software was used to analyse all of the collected data.

## III. Findings

This section presents the findings, based on the focus of this study, which is to gather information about the use of collaborative learning in teaching and learning processes at Malaysia Polytechnics. Therefore, only relevant items are included. In this study, a reliability test was performed and Cronbach’s  $\alpha$  values of 0.653 for students and 0.870 for lecturer’s questionnaires were obtained. Ghaffar [10] and Nunnally [13] indicated that questionnaires have a high reliability, if the Cronbach’s alpha value is above 0.80. However, [13] indicated that 0.6 is an acceptable reliability coefficient for preliminary analysis. It can therefore be concluded that an internal consistency of data was achieved.

### A. Lecturer’s Questionnaire

Table I clearly shows that 78.6% of lecturers implemented collaborative learning strategies in their classes and 62.8% of lecturers preferred using a project/assignment based strategy in their collaborative learning process, compared to other Collaborative Learning strategies available (Table II).

TABLE I. IMPLEMENT COLLABORATIVE STRATEGY IN CLASS

Valid	Frequency	Percentage
Yes	114	78.6
No	31	21.4
Total	145	100

TABLE II. COLLABORATIVE LEARNING STRATEGY

Valid	Frequency	Percent
Round robin	21	14.5
Jigsaw	13	9
Think pair share	17	11.7
Project/assignment base	91	62.8

Table III shows that 65.5% of lecturers evaluated their collaborative activity. However, only 31% of lecturers assessed their students’ projects based on output and student contribution. Meanwhile, 35.9% of lecturers only measured output and 33.1% did not measure anything at all (Table IV).

TABLE III. EVALUATE CL PROCESS

Valid	Frequency	Percent
Yes	95	65.5
No	50	34.5
Total	145	100

TABLE IV. MEASURING STRATEGY

Valid	Frequency	Percent
Did not assess anything	48	33.1
Only assessed end product	52	35.9
Assess both product and student contribution	45	31
Total	145	100

## B. Student's Questionnaire

The student's questionnaire results show that 62.9% of the respondents agreed and 10.4% of the respondents strongly agreed with the statement that lecturers only evaluated output and that respondents will get equal marks in their group (refer to Table V). Table VI shows that 47.5% of the respondents strongly agreed and 39.9% of the respondents agreed with the statement "It is unfair for all members to get the same marks."

Table V: Lecturers only evaluated output

Valid	Frequent	Percent
Strongly disagree	20	5.6
Disagree	75	21.1
Agree	224	62.9
Strongly agree	37	10.4
Total	356	100

Table VI: It is unfair for all members to get the same marks

Valid	Frequent	Percent
Strongly disagree	21	5.9
Disagree	24	6.7
Agree	142	39.9
Strongly agree	169	47.5
Total	356	100

## IV. Discussion and Conclusion

Research proves that collaborative learning promotes the development of soft skills. The results show that most lecturer respondents implemented collaborative learning strategies in their teaching and learning processes and most preferred a project/assignment based strategy. A project based collaborative learning strategy is an instructional method that provides students with complex tasks based on challenging questions or problems [14]. It involves the students' problem solving, decision-making, investigative skills, and reflection; which includes educator facilitation, but not direction. Through project based collaborative learning, students learn from experience, which they take into account and apply to the real world; outside of the classroom. It helps students to learn key academic content and practice 21st Century Learning Skills (such as collaboration, communication, problem solving, and critical thinking).

According to [15], to establish and maintain active collaboration is a challenging task, due to the lack (or low participation) of other group members to participate actively in their group work. Educators cannot assume that each member makes an equal contribution to a group work and thus give equal marks to all members [16]. In the student's questionnaire, most students agreed that lecturers only evaluated the output product and gave the same marks to every member of the group. Most strongly agreed that it was unfair for all members to get the same marks and that lecturers should give marks based on student's individual contribution, to encourage students to participate actively within their group's work activity [17]. Previous education research has provided the same evidence on how to increase willingness to work collaboratively [18]; whereby lecturers had to apply certain instruments to record and monitor

student discussions and assess student contributions from these discussions.

Most educational institutions currently adopt Learning Management Systems (LMS), such as from open sources, like Moodle and Sakai, or from commercial sources, like Blackboard, in order to centralize content, learning, and assessment activities, in one learning environment [19], [20]. LMS provide educators and students with a facility to improve and manage both teaching and learning processes [21]. They also provide a web platform, where many pedagogical activities can be performed. Students can use LMS features, such as discussion boards or forums, to facilitate communication and collaborative work, in this learning environment. However, the communication features of LMS are poorly utilized in most institutions, and are primarily being used for course content features, such as lecture notes and presentation slides.

Marijana et al., [22] report that the frequency of using the LMS provided by the educational institution is very low and has become unpopular among educators. In research conducted by [23] on Malaysia HEIs, the authors reported that the reason why HEIs still using LMS in teaching is because of the course content facilities. The samples in the study included Ungku Omar Polytechnic, Johor Bahru Polytechnic, and Shah Alam Polytechnic. The results show that the communication feature is the most unused feature and lecturers prefer to employ Social Network Sites to facilitate communication.

Due to the incapability and limitations of LMS, such as in networking and communications [24], lecturers used other applications as a replacement for a built-in discussion forum in LMS [25]. However, several studies showed that Social Network Sites (SNS) enable interaction, collaboration, resource sharing, active participation, and critical thinking in educational activities [9], [26]–[28], but simply cannot be successful in meeting the needs of the students. They can only be used as a supplement in teaching and learning processes. For that reason, the authors propose using the Learning Management System (LMS) as a tool to record and monitor student discussions and evaluate their contributions. Malaysia Polytechnics use a Moodle platform called CIDOS as their LMS. Incorporating Cidos with Social Network Sites, in order to facilitate Project Based Collaborative Learning, is recommended for future research.

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