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# Engineering Postgraduate Students' Perspective on Their Preparedness for the Job Market:Employability Attributes

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*Abstract*— The alignment of postgraduate academic programmes with the institutional and national aspirations, especially in terms of graduate attributes cultivation, has always been monitored with regular reviews involving all related stakeholders. The rapid changes and growing expectations of the industry have however provoked a growing murmur among industrial players on the sub-par competencies of master's and doctoral graduates from public varsities. On the other hand, having a finger on the job market's pulse, the Ministry of Higher Education Malaysia has established the National Graduate Employability Blueprint 2012-2017 [1] to serve as a guideline for higher education providers, including public universities like UTHM. This is referred to in the design and delivery of academic programmes for developing basic but essential graduate characteristics to meet the demands of the industry. With the implementation of Outcome-based Education in Malaysia for almost over half a century now [2], it is therefore not without trepidation to perceive the spreading ripples of murmur on the subpar performance of graduates in the industry. Clearly the alleged mismatch between institutional targets and the industrial expectations needs to be investigated, especially if the chasm exists despite the continuous monitoring of academic programmes involving relevant industrial stakeholders. Considering that it is the University's ultimate social responsibility to nurture desired graduate attributes for sustaining the graduate employability of public university graduates, it is important to identify if the universities are seeing eye-to-eye with the industry through the students undertaking the academic programmes. It follows that if graduate employability skills are the outcomes of an academic training, then the academic programmes would be the processes undergone by the students to cultivate the desired skills. This paper examines the students' view on the effectiveness of 3 master's engineering programmes (via the learning objectives / outcomes) in shaping them for the job market, corresponding with the graduate attributes outlined in the Blueprint.

Keywords— ***graduate attributes; job market; competencies; soft skills; engineering education; postgraduate***

## I. INTRODUCTION

Compatibility between graduate attributes and industrial expectations has a direct relationship with graduate employability. The employability rate would automatically rises if graduates fulfill expectations of the industry, be it in terms of technical competencies or soft skills. As such, any incompatibility between what the industry wants and what the graduates really are would lead to an inevitable drop of graduate employability. This is notwithstanding the reasons of the incompatibility, where the industry sees only inadequacy of the graduates affecting productivity of the respective organisations. The seeming lack of confidence on the graduates has even led to in-house training programmes for new recruits by some organizations. These training sessions, spanning between months to a yearlong, are outwardly aimed at familiarizing the graduates with organizational matters, but implicitly targeted at honing the new employees' 'soft skills' to suit the company's technical requirements and work culture expectations.

To bridge the academic programmes with expectations of the industry, the Ministry of Higher Education has introduced the National Graduate Employability Blueprint in 2012-2017 as a guide for higher education providers in academic programme design and development. This has gone hand-in-hand with the guidelines and standards as well audit exercises by the Malaysian Qualifications Agency (MQA) to ensure attainment of the minimum requirements and expectations of all academic programmes offered in public and private institutions. As in Outcome-based Education (OBE), these are generally translated in the Programme Educational Objectives (PEO) and Programme Learning Outcomes (PLO) of an academic programme, suitably substantiated by the individual courses via the Course Learning Outcomes (CLO). Outcome–based Education (OBE) essentially posits that education is but a process to mould and transform students into the required 'shapes and sizes' before being marketed to the industries or employers. If the moulding fails to produce graduates according to the 'specifications' demanded by the industries, further training upon recruitment may be necessary, incurring costs and time, and demotivating the fresh graduates with self-doubt of their capabilities.

The breakdown in the bridging mechanism, consequently leads to the growing chasm between institutional aspirations and industrial needs and wants. Some common laments from the industries include poor communication skills, lackadaisical working attitude, excessive diffidence and lack of independent thinking. Very few actually complain about incompetency in terms of technical knowledge and skills.

This paper examines students' view on the effectiveness of 3 master's engineering programmes (via the learning objectives / outcomes)in shaping them for the job market, corresponding with the graduate attributes outlined in the Blueprint. The samples included 3 engineering programmes, i.e. Master's in Mechanical, Electrical and Civil Engineering (by coursework), which constitute the mainstream taught course engineering programmes in the University. Compatibility check between the programme learning objectives (PEO) and outcomes (PLO) in conjunction with the attributes (GA) outlined in the National Graduate Employability Blueprint 2012-2017were reported in Chan et al. (2015) [3]. The data presented in this paper are focused on the students' perspective only.

## II. Mapping of The Respective Expectations

The convergence of expectations by students, parents and educators for the outcomes of institutional learning is summarized as '21st century skills', with students wanting good grades, parents wanting to educate their children and educators wanting to enhance the career prospects of the students[4]. While technical skills are in general the most highly regarded competencies where financial returns are concerned for the graduates [5], it is equally debatable if the success of a higher education should not be measured through the intricate correlations between learning for knowledge and learning for employability, but mainly dependent on graduate salaries or social impact alone [6]. On the other hand, the increasingly globalised and regulated quality control of tertiary education has resulted in rigorous monitoring and assessment of academic programmes, as substantiated by evidence of students' achievement as well as institutional performance [7]. Designated learning outcomes are objectively measured to reflect attainment of the targeted levels in each learning components, including 'hard' or technical competencies and 'soft' or desirable graduate skills. These have led to institutional transformation necessary to implement comprehensive competency development among students, with explicit alignment of academic programmes with industrial requirements and market demands [8]. It is no longer adequate to have graduate skill sets for the current job requirements but for the future market demands too, i.e. adaptability to changing work environment, cross-cultural competence, accountability and business management skills [9].

## III. Malaysian Qualification Framework (MQF)- Graduate Attributes Mapping

As shown in Table 1, the MQF's7learning domains are mapped against the4 categories of Graduate Attributes (GA) outlined in the Blueprint (Fig. 1).The individual attributes under each GA category are labelled accordingly for ease or cross-reference. Note too that the 9 PLOs assigned to each master's programme are related with the MQF learning domains as noted in Table 1. A quick glance at Table 1 reveals great emphasis on the college experience (A3) of students, which is related to all learning domains prescribed in the MQF. These encompass technical competencies as well as values, character-building and enhanced social and leadership skills. It is also noticeable that at least 2 attributes are catered for by each learning domain, indicating good convergence of the 2 frameworks. The alignment of the frameworks essentially fulfills the nation's higher education aspiration to nurture graduates who can make a seamless transition into real world working environment. The graduates would be equipped with relevant knowledge and skills, while complemented by engagement in co-curricular activities, exposure to their chosen fields of study, and sufficient prior job knowledge to make the move as effective as possible.

TABLE I. Mapping of MQF learning domains and GA

| GA | Academic (A) | | | | Exploration (B) | | | Personal Management (C) | | | | | Connectivity (D) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MQF domains | *A1* | *A2* | *A3* | *A4* | *B1* | *B2* | *B3* | *C1* | *C2* | *C3* | *C4* | *C5* | *D1* | *D2* | *D3* | *D4* |
| Knowledge (PLO1) | x | x | x | x | | | | | | | | | | | | |
| Practical skills (PLO2) | | | x | x | | | | | | | | | | | | |
| Social skills and responsibilities (PLO7&8) | | | x | | | | | | | | x | | | | | |
| Value, attitudes &professionalism (PLO7&8) | | | x | | | | | x | x | x | x | | | | | |
| Communication, leadership & team skills (PLO3,5&9) | | | x | | | | | | | | | x | x | | x | |

| | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Problem solving & scientific skills (PLO4) | | | x | | x | x | x | | | | | | | | | |
| Information management & lifelong learning skills (PLO6) | | | x | | | | | | | | | | | x | | x |

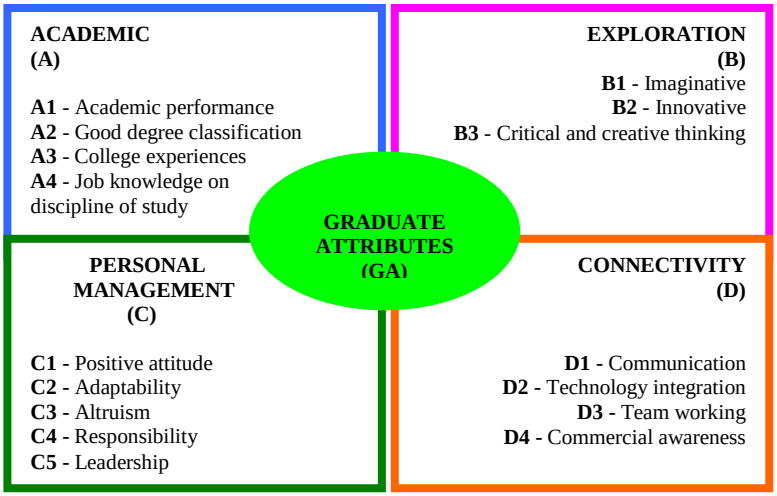



Fig. 1. National Graduate Employability Attributes (Ref.: The National Graduate Employability Blueprint 2012-2017)

| Top Reasons For Fresh Grad Unemployment | |
|---|---|
| 1 | Asking for unrealistic salary/benefits (67%) |
| 2 | Poor character, attitude, or personality (60%) |
| 3 | Poor communication skills (55%) |
| 4 | Poor Command of English language (55%) |
| 5 | Lack of required skills (42%) |

Fig. 2. Survey on unemployment conducted by JobStreet.com (from a total of 1,019 clients, managers and senior managers across various industries in Malaysia, July 2013) [10]

It is interesting to relate the well-mapped learning domains and graduate attributes in Table 1 with what the industry perceives of Malaysia graduates in general. Fig. 2 shows the survey results by JobStreet.com on employers' perception of fresh graduate unemployment, where the top ranking factors are primarily revolving around the soft skills, i.e. attitude, communication skills and command of English. These survey findings appear to be in agreement with earlier discourses by Kaufmann [5] and Kelly et al. [6] on the pivoting point between short term financial returns and longer term professional development supported by the graduate's soft skills. The findings are also an urgent reminder of graduates lacking in skills no longer considered as plus points but essentials in gaining good employment. It also bags the question of whether students, prior to completion of their studies and graduation, are aware of the learning processes laid out for them to nurture and cultivate the skills and attributes in Table 1. As more than half of the employers interviewed reckon graduates lack skills and characteristics emphasized in the exploration (B), personal management (C) and connectivity (D) categories of GA, despite the curriculum designed and delivered in accordance with MQA's framework of learning domains, the problem would seem lie with the students: a lack of conscious awareness on the intrinsic skills and values not immediately apparent in the course delivery, but often embedded and/or inculcated via extra-curricular activities.

## IV. QUESTIONNAIRE

For the present study, a questionnaire was used as the instrument to collect feedbacks from master's by coursework students at the University. The questionnaire consists of 5 parts:

(a) Part A: Gender, age, ethnicity, undergraduate background, reasons for pursuing a master's degree, current employment (if applicable), plan after completing master's degree (if employed), plan after graduation (if never been employed) and which preferred organization to be employed in.
(b) Part B: The agreement between the PEOs and PLOs of the respective programmes, based on a 5-point Likert scale (1-Strongly Disagree, 2-Disagree, 3-Not Sure, 4-Agree and 5-Strongly Agree).
(c) Part C: Cultivation of the individual graduate attributes, based on a 5-point Likert scale (1-Strongly Disagree, 2-Disagree, 3-Not Sure, 4-Agree and 5-Strongly Agree).
(d) Part D: Rating on the University's facilities, services and support for the students' campus life, based on a 5-point Likert scale (1-Strongly Disagree, 2-Disagree, 3-Not Sure, 4-Agree and 5-Strongly Agree).
(e) Comments: Suggestions and views not covered in the questions.

Note that only parts (a), (b) and (c) of the survey results are presented in the paper, as corresponding to the students' perspective of their job preparedness while undergoing the postgraduate training by coursework programmes. The analysis is focused on whether students are consciously developing the skills and attributes in formal or informal campus activities for the various GA categories.

## V. PART A: RESPONDENTS OF SURVEY

The total number of the respondents is for the survey was 110. Fig. 3 shows the gender distribution of the respondents to be 59% as males and 41% as females. 35% of the male respondents were international students while only 6% of the female respondents were from foreign countries. This corroborated with the predominantly male students in terms of international enrolment as compared with a more equal gender distribution among the local students. The international respondents hailed from Libya, Nigeria, Yemen, Algeria, Iraq, Egypt, Somalia and Sudan, where the first 3 countries were where most of the postgraduate students at the University originated from. In terms of age group, 58% of the respondents were 26-35 years old, 32% fell in the range of 20-25 years old, 9% in the 35-45 years old bracket and only 1% constituted those aged above 45 years old (Fig. 4). It was also found that 56% of the respondents enrolled with a bachelor's degree from UTHM, while the others studied for their first degrees in local or overseas institutions of higher learning. This indicates the University to be its own largest feeder of postgraduate students, a probably inevitable fact due to the relatively outskirts location of the University, competition for student recruitment with a more established university in the same state as well as a growing academic prominence yet to be comparable to the more established varsities in Malaysia.

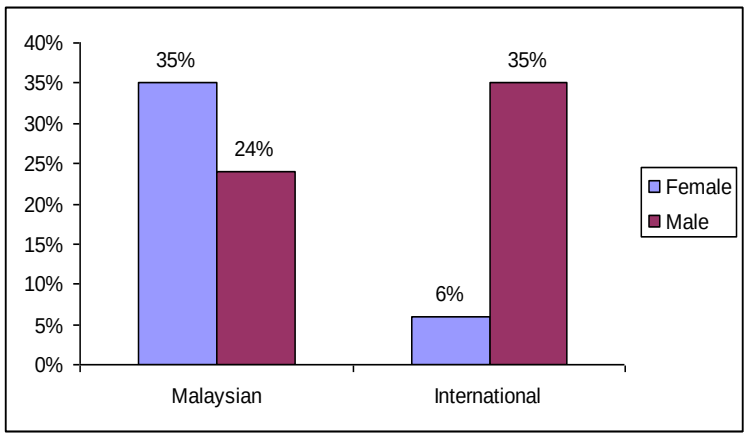



Fig. 3. Gender distribution of respondents

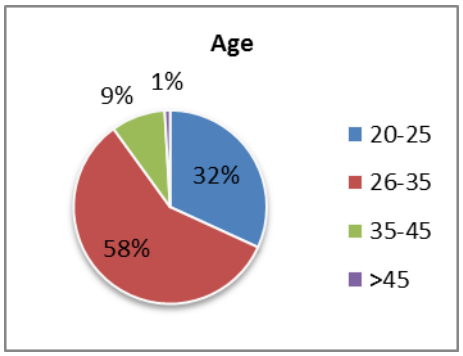



Fig. 4. Age distribution of respondents

In terms of entry cumulative point average (CPA) of maximum 4.0, more than half of the respondents enrolled in the master's by coursework programmes with CPA ≥3.0 (Fig. 5). As the minimum entry requirement for the programme is 2.5, very few of the students actually had unsatisfactory results upon entering the postgraduate programmes. High flyers with CPA between 3.60 and 4.00 made up slightly more than 10 % of the respondents. In addition to good grades in undergraduate level, enrolment in the postgraduate programmes also required certain level of English proficiency. The most common proficiency test results were based on the Malaysian University English Test (MUET) assessment, with ascending bands from 1 to 6 (Fig. 6). International respondents mainly came in with IELTS proficiency test results.

Note too in Fig. 6 that 45% of the respondents did not have possess any English proficiency qualifications, but were required to attain a minimum of MUET Band 3, IELTS 5.0 or TOEFL 500 upon graduation as an exit requirement.

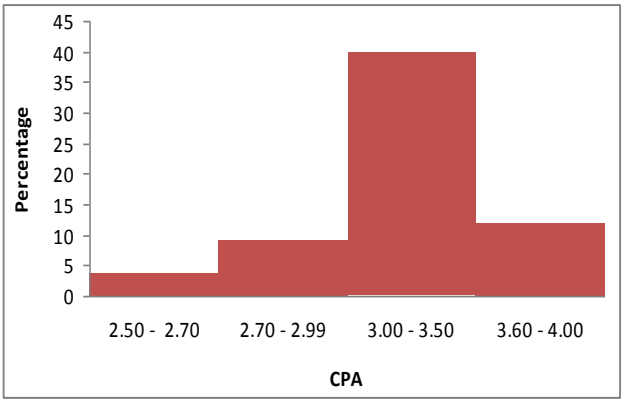



Fig. 5. Entry CPA (undergraduate level)

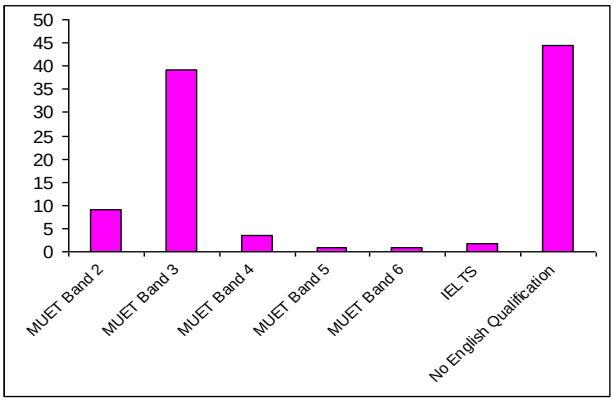



Fig. 6. Entry levels of English proficiency

When asked about their reasons for pursuing a master's degree, a third of the respondents cited professional enrichment as the driving factor, a feature not unexpected in working adults and mature students. About a quarter each of the respondents considered the master's studies as an effective means towards enhanced professional competencies and enriched personal skills. Interestingly 18 % of the respondents enrolled in the master's programme as an alternative to difficulties or failure to gain employment in suitable fields. Considering that 16 % each of the respondents expected the master's programme to improve their chances of promotion, pay rise and better marketability, it does corroborate with observations by Kaufmann [5] and Kelly et al. [6] that postgraduate studies are often associated with more secure career-related financial advancements. A small number of respondents attributed the switch in discipline of study as their main reason for enrolling in the master's programme (i.e. 8 %). Enquiries on plans after completion of the master's studies elicited the answers of returning to previous employment but with better remunerations expected (34%), embarking on a job hunt for new employment (27%), and remaining in the current employment with uncertain promotion prospects (24%). The last category of students was mainly those currently in the employment of polytechnics and high skills colleges, who signed up for the programmes for personal development more than for promotional purposes. A small number of the respondents were unsure of their future employment endeavours upon graduation, but contemplate PhD as a likely option.

The final questions in Part A explored the type of organization that the respondents prefer to be employed in. More than 53% of Malaysians prefer to be employed in the government sectors, 44% in the industry but preferably in government-linked companies (GLC), multinational organization and local companies. Only 11% were eager to venture into businesses or self-employment. 6% of the respondents were interested to serve in non-governmental organisations (NGO) in the local and international platforms. The international students had similar plans and preferences: 50% in government sectors, 30% in the industry, 13% self-employed and 7% involved with NGOs. As all the international students were from Asian countries with a growing economy like Malaysia, and cultural background not too dissimilar to that of their host country, it is perhaps not surprising that the students had similar idea of their foreseeable future employment.

## VI. Part B: Attainment of PEOs and PLOs

In Part B of the questionnaire, the student's perception of the extent to which delivery of the master's programme was aligned with the predetermined learning objectives as well as outcomes was examined. Details of the PEOs and PLOs of the respective programmes can be found in the previous report [3]. Correspondence between the targeted outputs and students' perception are presented in Fig. 7 & 8. On a Likert scale of 1 to 5, an average of about 65 % of the respondents scored 4 out of 5 for the cultivation of PEOs in their respective programmes (Fig. 7). As actual attainment of the PEOs are not measured until 3-5 years after graduation, indicating long term educational impact of the programmes on students, presently the respondents' perception must be read in conjunction with the attainment of PLOs instead.

PLOs are outcomes to be reached immediately upon completion of the programme, cumulatively developed with each course undertaken by the student throughout his or her master's study. Hence the students' perception on the cultivation and ultimately fulfilment of the PLOs can be extrapolated to gauge future attainment of the intended PEOs. In Fig. 8, again the predominant score given was 4 of 'agree' (≈65 %). An average of 15 % respondents considered their competencies to be improved significantly by undergoing the master's programmes, i.e. score 5 ('strongly agree'). Perhaps more worryingly is the similar number of respondents scoring a '3' for the attainment of PLOs, suggesting uncertainties of how the programmes were shaping them into graduates with a good command of hard and soft skills. It could also be an indicator of ineffective

explanations of the learning outcomes to the students, leading to a lack of conscious acquisition of the knowledge, skills and attributes imparted or nurtured in class. Besides, there is a possibility of excessive coursework or over-emphasis on examination results overwhelming the learning processes for components other than the subject matter.

Taking into account the main purposes of pursuing a master's degree as no other than improving one's career prospects, students may also be more partial towards obtaining good grades than paying extra attention to strengthening the desirable graduate attributes. Students may have got carried away in completing the assigned coursework without engaging effectively with fellow coursemates to hone their employability skills as intended. Academic staff are also accountable for the seeming uncertainties felt by students pertaining to the practical skills and knowhow, i.e. PLO2. While the cognitive component is much emphasized at master's level of study, the relation with current field practices, regional as well as global technological advancement and trends need to be given due elaboration too. This would ensure a balanced understanding of the in-depth knowledge and in situ implications and implementation.

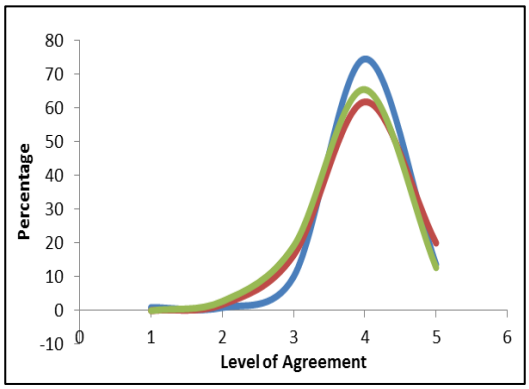



Fig. 7. Level of agreement for attainment of the PEOs in the master's programmes

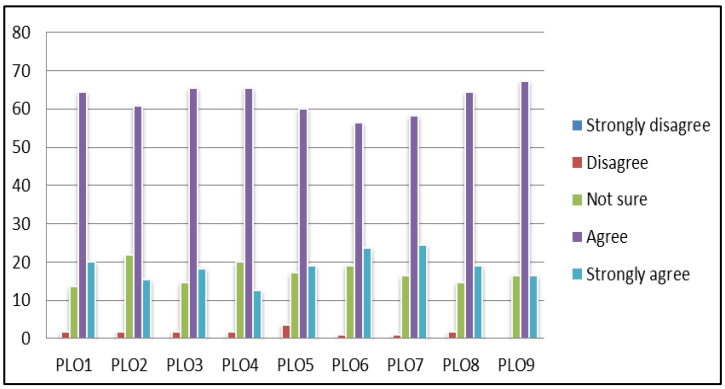



Fig. 8.Level of agreement for attainment of the PLOs in the master's programmes

## VII. Part C: Cultivation of Graduate Attributes

This section presents the results from Part C of the questionnaire, which was an assortment of questions pertaining to graduate attributes arranged in no particular order to avoid unconscious stereotyping the answers by the respondents. As shown in Tables II - V, the graduate attributes under each category of academic, personality management, connectivity and exploration, which were scored from 1-5 on a Likert scale are summarized as mean values for each programme. The mean scores hovered between 3.7 and 4.4, corresponding with approximately 74-88 % of the total scores. It follows that in general the students considered postgraduate studies to make meaningful changes and improvement to their outlook in employability skills.

The more significant scores were observed in technical competence (C1-academic), imaginative (C4-exploration), critical (C6-exploration), creative and innovative (C10-exploration) thinking skills, professional accountability (C15-personality management), positive attitude (C17-personality management) as well as technology adoption (C9-connectivity), where the means scores were above 4 for all 3 programmes. It would appear that the respondents found the master's programmes beneficial in enhancing their character building and exploration attributes more than development of the academic and connectivity aspects. This finding suggests maturity in the respondents who no longer consider academic excellence as the narrowly defined purpose of higher education. The eagerness to sharpen their thinking skills reflected the training embedded in the programmes, including group tasks and projects which required students to think in a logical and systematic leading to creative problem solving. Critical thinking skills boost by imagination, creativity and innovation are indeed trademarks of competent engineers in the filed faced with myriad unexpected challenges not always taught in lectures. Besides most of the students who enroll in these master's programmes appeared to look forward to personal skills grooming to better prepare them for the job market. These include altruism and professionalism in engineering practices closely associated with socio-economic impact, attributes undeniably crucial in successfully carrying out the balancing act between development for mankind, preservation of nature, cultural heritage and social harmony as well as equitable wealth distribution.

TABLE II. Mean for Academic Attributes

| No. of Question | Academic Attribute | Question | Mean | | |
|---|---|---|---|---|---|
| | | | MA (N=64) | MM (N=23) | ME (N=23) |
| C1 | Academic performance | I am confident in my ability to apply the knowledge that I have learned in my postgraduate studies. | 4.05 | 4.22 | 4.22 |
| C5 | Job knowledge on discipline of study | I feel well prepared in my area of specialisation. | 3.77 | 3.91 | 3.96 |
| C11 | Academic performance | I am given assignments that match my skills, abilities and interests. | 3.94 | 4.00 | 3.91 |
| C14 | Good degree classification | I believe good grades will help me to get promotions and employment. | 3.78 | 4.09 | 3.96 |
| C18 | College experiences | I participate in a variety of co-curricular activities to enrich my college experience at UTHM. | 3.81 | 3.96 | 3.96 |

TABLE III. MEAN FOR PERSONALITY MANAGEMENT ATTRIBUTES

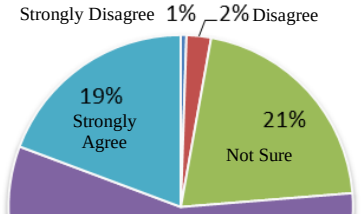
| No. of Question | Personality Management Attribute | Question | Mean | | |
|---|---|---|---|---|---|
| | | | MA (N=64) | MM (N=23) | ME (N=23) |
| C3 | Adaptability | I am able to respond positively to changing circumstances and new challenges. | 3.97 | 3.96 | 4.09 |
| C8 | Positive attitude | I believe integrity is number one to behold in my future career. | 3.78 | 4.13 | 4.13 |
| C15 | Responsibility | I feel well prepared to carry out my professional responsibility. | 4.08 | 4.04 | 4.09 |
| C17 | Altruism (Public spirit + Compassionate) | I believe a positive attitude will lead to my career advancement. | 4.06 | 4.04 | 4.04 |
| C20 | Leadership | I feel well prepared to assume a leadership position. | 3.94 | 4.13 | 4.35 |

TABLE IV. MEAN FOR CONNECTIVITY ATTRIBUTES

| No. of Question | Connectivity Attribute | Question | Mean | | |
|---|---|---|---|---|---|
| | | | MA (N=64) | MM (N=23) | ME (N=23) |
| C2 | Communication | I feel well prepared to communicate my ideas orally as well as in writing. | 4.00 | 4.00 | 3.96 |
| C9 | Technology integration | I am confident in my ability to use appropriate technologies in my work. | 4.08 | 4.00 | 4.13 |
| C12 | Commercial awareness | I feel well prepared to critically evaluate the literature in my field. | 3.95 | 4.13 | 4.17 |
| C16 | Team working | I am well aware of the different roles within a good team. | 4.06 | 4.04 | 3.87 |
| C19 | Commercial awareness | I establish networking with academics and senior engineers in my area of specialization. | 3.77 | 4.13 | 4.13 |

TABLE V. MEAN FOR EXPLORATION ATTRIBUTES

| No. of Question | Exploration Attribute | Question | Mean | | |
|---|---|---|---|---|---|
| | | | MA (N=64) | MM (N=23) | ME (N=23) |
| C4 | Imaginative | I have enhanced my imaginative thinking. | 4.00 | 4.13 | 4.09 |
| C6 | Critical and creative thinking | I have enhanced my critical thinking skills. | 4.19 | 4.09 | 4.13 |
| C7 | Innovative | I agree pursuing postgraduate is equal with exploration of knowledge. | 3.98 | 4.09 | 4.09 |
| C10 | Innovative | I have enhanced my innovative and creative thinking skills through academics activities in my postgraduate studies. | 4.19 | 4.26 | 4.04 |
| C13 | Critical and creative thinking | I have enhanced my problem solving skills. | 3.88 | 3.87 | 4.35 |



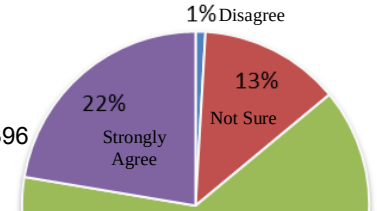



Fig. 9 (a)-(d) show the frequencies of agreement for each category of graduate attribute examined. Achievement in the academic aspect saw over 75 % of agreement on the effectiveness of the master's programmes, though a puzzling 21 % of the respondents reported to be unsure of their learning outcomes in terms of technical competencies (Fig. 9a). This could be constituted by the international students with marginal English proficiency (see Fig. 6) who found the lessons delivered in English a challenge to follow and comprehend. As students were allowed to enrol without the minimum English level requirement (but to graduate with the proficiency level stipulated), the University could perhaps provide extra hours of language skills training to to overcome the language barrier. Nonetheless it has since been regulated that the minimum English proficiency level to be an entry requirement for all students, local and international, since late last year to ensure performance quality of the students. 86 % of the respondents agreed that the programmes were helpful in developing their personality management attributes (Fig. 9b). This corresponds with earlier observations that students value the character building exercises incorporated in the programmes, especially in terms of their ability to shoulder professional and social responsibilities upon graduation. The small number of respondents who were unsure (13 %) was most likely caused by immaturity of students who enrolled in the studies without careful thought of what the postgraduate studies can do to their personal advancement besides improved technical knowledge.

In Fig. 9 (c) & (d), the mobile technologically savvy students recorded more than 80 % of agreement that the master's programme helped them to further develop their connectivity skills and exploration attributes. It is expected that the students utilised their improved connectivity skills to further information search and data management, simultaneously honing their analytical as well as problem solving skills. On contrary, the 17 % response of uncertainty in both categories of attribute point to a small number of students either unwilling or unaware of the urgency to establish their communication, team-working and leadership skills while sharpening their higher order thinking abilities. Shortcomings such as these can be rectified by academic staff relating the course contents and activities to the targeted learning outcomes (CLO) and correlation with the culminating accumulative PLO attainment in class at a regular basis. This constant reminder would guide the students towards conscious cultivation and development of the attributes in the carrying out the assigned tasks respectively. It is often the case where students are unaware of the implicit purpose of a particular task apart from the explicit technical competence components. As a result, students may not be fully informed of the skills to be harnessed throughout the master's programme.

## VIII. CONCLUSIONS

The survey conducted to gauge students enrolled in 3 engineering master's programme (coursework) focused the students' perception of their preparedness for the job market. The questionnaire was designed to direct respondents to a self-examination of the extent of employability skills development via the postgraduate programme. The respondents seemed to be of the opinion that attributes in character building and exploration were more important than those related to technical knowledge and connectivity. This is attributed to the maturity of the postgraduate students in consciously improving their marketability as well as adaptability in the job market via the master's courses. It is also indicative of the compatibility between the programmes' curriculum, learning objectives and outcomes aligned to the designated learning domains by MQF, encompassing the 4 categories of graduate attributes outlined in the National Graduate Employability Blueprint in 2012-2017. Overall the study found no mismatch between the programme contents and delivery with the students' expectations as shaped by the industrial and market demands.

## ACKNOWLEDGMENT*(Heading 5)*

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