THE INTRICACIES IN BUILDING SUSTAINABLE CURRICULUM FOR HIGHER EDUCATION

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Abstract: Building sustainable curriculum with the objective of producing graduates equipped with employability skills has been an on-going concern for higher education institutions (HEIs). Today, the world is increasingly moving towards becoming interconnected and borderless, which brings new challenges to the HEI sector. It is crucial to understand the intricacies for HEI curriculum development process to ensure a standard quality of service to sustain in the market they operate in. The challenge of integrating HEI curriculum is significant as it requires not just incorporating discipline knowledge and broader range of skill, but also the challenge of keeping it continuously improving and sustainable. Hence, it is the aim of the study to address the intricacies in building sustainable curriculum in higher education for business and accounting undergraduate programs. The study uses focus group discussions (FGD) to gather the opinions of teaching communities from two public universities as preliminary evidence in identifying the challenges in applying and integrating the curriculum process. The findings from the study revealed that the curriculum needs to be aligned accordingly to the learning domains consisting of cognitive (the mind), psychomotor (the hand) and affective (the heart) domains which are then cascaded into intended learning outcome at programme and course levels. The paper suggests that it is important to recognise interconnections between strategic initiatives, including industry collaborations as well as the constructive alignment to foster deep learning. The deep learning strategy helps to ensure that HEI produces graduates with high competencies in technical knowledge and soft skills, including critical thinking and communication skills. Most importantly, the study reinforces the conviction that deep learning strategy play a profound role in inculcating good human values. Such intrinsic skills may prove invaluable in assisting graduates to deal with problems or issues later on in their lives. Having these intrinsic skills enhances their chances of surviving in the increasingly complex, dynamic and uncertain future which in turn will facilitate the graduates’ sustainability in the long run.

Keywords: Sustainability, Higher Education, Curriculum
1. Introduction

The challenge of building curriculum is not about defining what it is or what makes a quality one, but it is about keeping it relevant, mostly sustainable. How do we make sure our curriculum stays relevant and sustainable? According to a report by International Bureau of Education, UNESCO (2016), good curriculum means that it needs to be flexible and be able respond to change (i.e. technology) accordingly, making it as a cyclical process. Turner II et al. (1990), among others, define sustainability as an adaptation to the changes whether in economic, environmental and social in order to be sustainable. Hence, building curriculum involves an evolving process as it needs to adapt to changes with career or industry demands, expanding technology and so on.

Curriculum change need to keep pace with rapidly expanding knowledge, broadening access to information technology such as big data, data analytics, which leads to constantly changing in the knowledge and skills required by graduate. Given the dynamic nature and the cyclical approach to curriculum development, higher education institutions (HEIs) should provide the leadership, resources, and expertise to ensure that curriculum can be continuously evaluated and improved. Hence, the curriculum development process itself should be sustainable.

A literature search by Munohsamy (2015) indicate a consistent core set of employable skills in the engineering sectors from graduates such as communication skills, teamwork, problem solving skills, interpersonal skills, thinking skills, leadership skills, theory application, decision making, lifelong learning skills and ICT skills, ranked from the most acquired to least acquired skills. Munohsamy (2015) suggested that HEI should take measures to plan and develop these skills into their curriculum. Thus, a major challenge for HEI is to prepare graduate to live sustainably in era which change rapidly. In mediating the risks as a consequence of the change, HEI not only to consider the knowledge, technical skills and values that need to be included in their curriculum, but also how can they make learning relevant and interesting to students? In response to changing educational needs, technological and societal developments, HEIs might need to change and adapt their learning and teaching strategies, and aligned it with the appropriate assessment methods. Involving students and inspiring their interest in course content can be challenging in all disciplines (Holmes & Rasmussen, 2018) in the new era.
Outcome-based Education (OBE) offers a curriculum design that emphasizes student-centered learning (SCL) and learning outcome achievement, instead of focusing on traditional content driven curriculum. OBE focuses on preparing students not only on the knowledge and technical skills, but other soft skills including human values with the intention to produce job ready graduates. SCL suggests interactive and collaborative learning as student engagement promotes better and in-depth understanding as compared to traditional classroom based on lecture. Biggs, Kember and Leung (2001) found that good teaching techniques were able to encourage students towards using deep approach strategy. In contrast, poor teaching techniques lead to students using surface approach in learning (Biggs, 1999). Biggs, Kember and Leung (2001) suggested that students implement their learning styles based on the demands of the course they enrolled in. Furthermore, as suggested by Cannon and Keeper (2011), the interaction and facilitation between academic staff and students have impact on student retention, course completion, graduation and ultimately, employability rate.

Business and accounting degrees are mostly influenced by real practice and hence the curriculum design need to provide a clear link between the development of relevant skills and employability of graduates. As higher education is seen as agents of change, universities have profoundly focused on preparing graduates for working life equipped with employability skills. The purpose of this paper is to study the teaching and learning practices, as well as the challenges faced by academic staff in building sustainable curriculum for business and accounting degree program in higher education (HE). The major concern is finding the appropriate ways to equip graduate with the knowledge, technical skills and values for sustainability. Hence, the paper provides preliminary findings and evidence from two focus group interviews with selected academic staff from Universiti Utara Malaysia (UUM) and Universiti Malaysia Terengganu (UMT) within which to justify the complexities and challenges in building sustainable curricula.

2. Literature Review

Sustainability may be understood as “the capacity to maintain or to improve the state and availability of desirable materials or conditions over the long term” (Harrington, 2016), while the quest on achieving sustainable development can be defined as to sustain or to enhance valuable circumstances or environments or resources for present and future. What does “sustainable” mean in the context of higher education curriculum? Tejedor et al. (2018) underline that sustainability is something that can no longer be ignored by HEIs, as it is very common nowadays in producing knowledge and making the right decisions in its effort to sustain. Through literature survey, efforts in achieving sustainability by universities includes; incorporating sustainable development in managerial practices, improving ways in communication, widening the curricula, development of learning objectives with interactive strategies, building up the competences in sustainability such as hiring experts in that area and intensifying the discussion between universities and societies to discover new opportunities in many areas. The commitment on sustainability in HEIs must also be built on holistic approach that embedded into the curriculum. That is, an approach that taking the present needs into account without avoiding the future needs. The needs should include social justice, ecological integrity and well-being of all lives.
Further, to achieve sustainability, the main effort that should be activated by universities is the collaboration between peoples from inside and outside the campus. This engagement would enhance many prospects such as learning and teaching, and research processes. That is, the universities should fertilise, at least, the interdisciplinarity activities that are deemed related to them. Not only that, it would be more precious if they can upgrade the activities one stage higher to transdisciplinarity, defined as “the search for articulations, preserving the different realities and confronting them in a controlled way”. Also, transdisciplinarity is about determining the evolution of societies and their problems by coordinating and assimilating of knowledge from various fields and sources, in collaborative learning mechanisms that resulted in a robust and transferable outcome. This is essential as graduates nowadays walk into unfamiliar ground as they enter their workplaces for the first time and the environment in that places requires skills on transdisciplinary, participatory, solution-oriented, macro-ethical and flexibility to survive. Klein (2004) defines transdisciplinarity in achieving sustainability as; transcendence, problem solving and transgression. That is, transdisciplinarity is an effort that is great, solution-oriented and out-of-the-box thinking, which is in line with the former understanding of transdisciplinarity.

In terms of education, without sustainability education, or education for sustainable development (ESD), there will be catastrophic environmental crises, collapsing of political systems, religious fanaticism, and unsustainable and unbalanced economic development (Corcoran and Wals, 2004). This happens as the education has failed to balance or stabilise the needs and responsibilities that are rapidly changing in the area of economic, environmental and social that have been mentioned before. In relation to that, Karatzoglou (2013) also emphasises on ESD in HEIs. ESD is defined as a teaching and learning process which originated from sustainability fundamental for all type of education. It can be achieved by imposing environmental-friendly procedures in university, enhancing the lecturers, researchers and students for upcoming challenges in their area of discipline, fostering the participation of stakeholders while at the same time gaining advantage from their expertise and forming an aggressive research agenda from time to time based on the current issues, problems and needs of the society. In other words, sustainability for HEIs is a combination of individuals, partners, units and so on which results in a large and complex overall structure, in which each participant offers diversity, density and intensity to the institutions which results in benefit for each of them. As an example, HEI could develop a Regional Centre of Expertise as one of the steps to achieve sustainable development. The main function of the centre is to affiliate the interests and the abilities of the locals, synchronise their energies with the experts from the HEI, hence progressing the capacity of the locals and the universities to overcome many issues from the collaborative point of view. Not only that, new curriculum based on the regional issues can be developed and implemented to tackle the current needs and at the same time providing new skills to that region. Therefore, the regional centre can be seen as a vigorously learning organisations that take the universities away from their traditional structure with the purpose of action-oriented research, holistic and effective approach and linking theory to practical prospect.
In the case of teaching and learning framework for sustainable development, Tilbury (2008) refers to the proposal and Tilbury and Cooke (2005) for guidance, that is HEIs need to shift from the practice of “bolt-on additions” to the existing curriculum to improvement within existing curriculum, the practice of delivering on knowledge and creating awareness on issues to questioning and getting to the root of the issues, the practice of teaching about attitudes and values to encouraging clarification of existing values, the practice of seeing people as the problem to seeing people as change agents, the practice of sending messages about sustainable development to creating opportunities for reflection, the practice of negotiation and participation, raising awareness and trying to change behaviour to challenging the mental models that influence decisions and actions, the practice of more focus on the individual and personal change to more focus on professional and social change, the practice of negative ‘problem-solving’ approaches to constructive creation of alternative futures, and the practice of isolated changes/actions to sustainability to learning to change to achieve sustainability.

Sustainability also concerns with the employability of the HEI graduates. Crossman and Clarke (2010) for example, underline that the ability for graduates to sustain in the employment that are in line with their studies during life at campuses is understood as having the current and necessary skills and capabilities for that employment. This reflects the ability of the HEIs that are responsive to the changes needed by their surroundings. Also, this can be seen as HEIs are adapting to the environment and demands in the workplaces, societies, economics which do change from time to time. This situation should be as a result from education for sustainability.

Likewise, graduate employability also serves as a benchmark for many academic programs and institutions, and the employability is also being measured not only on individuals but also on the HEIs. As been accepted within higher education, ‘employability’ means the development of: “a set of achievements - skills, understandings and personal attributes - that make graduates more likely to gain employment and be successful in their chosen occupations, which benefits themselves, the work-force, the community and the economy” (Yorke, 2006: 8). Some say that employability reflects how the HEIs paying back to the society, that is, through the output that one day would mould the type of the society. Nevertheless, sustainable graduates that are needed are the one that would protect the interest of the society, not necessarily the one that can contribute economically to the society. Harvey (2001) for example disagree to the trend that placing employability as an achievement to the HEIs. Rather, he sees employability as a natural tendency that may varies according to individual, while at the same time not necessarily affecting the HEIs, government and also employers. Cranmer (2006) however, sees employment as a factor that contribute to the competitiveness of economy from the global point of view. That explains why many education programs nowadays are focused on specific skills and transferable skills. Specific skills are concern on the area in which the students are interested in while transferable skills are concern on communication, learning, problem solving and others. Hence, these two skills are vital not only to the sustainability of the HEI itself, but also to the graduates, environment, economic and society. As an addition, the sustainability of the graduates is seen as a result from the sustainability approaches that have been undertaken by the HEIs, especially in its curricula, which in fact resulted sustainability to the graduates’ surroundings.
Malaysia Education Blueprint (MEB) 2015-2025 (Higher Education), in line with Transformasi Nasional (TN50) vision outlines 10 strategic initiatives or shifts to enhance graduate employability skills. MOHE’s emphasis on the balance between Knowledge and Skills (Ilmu) and Ethics and Morality (Akhlak) to produce holistic and balanced graduates are translated through the eight learning domains outlined in Malaysia Qualification Framework (MQF). The 8 learning domains consisting of cognitive, psychomotor and affective domains are then cascaded into intended learning outcome at programme and course levels. As highlighted by King, Goodson, & Rohani (2011) to remain relevant, graduates need to develop capacities to learn continuously through thinking and reasoning, problem solving, decision making and interpersonal competence. Higher order thinking skills is an important aspect of the teaching and learning process, because the ultimate aim of teaching is to ensure that students can think and solve problems critically. This corroborates with the view of Kerka (1992), that the best way to prepare future employees and problem solvers, is to teach students how to think instead of what to think.

3. Problem Statement

In response to comments from industry that graduates were not ready for work and lack of technical and soft skills, such as communication, analytical and problem-solving skills, universities have been adopting various strategic initiatives on developing graduates with employability skills. Employability of the graduates and how they sustain in the market and sectors that they serve is a bugging question that needs to be carefully thought and considered by all HEIs. HEIs need to be forefront in championing the course of producing sustainable graduate and this agenda should be given the highest priority given the importance of graduate to shape the future direction of the country. Hence, the research questions that guide this study are as follows: 1) How do the HEIs conduct the process of teaching and learning to achieve and integrate sustainable education in the curriculum? 2) What are the challenges faced by the HEIs in building and developing sustainable curriculum? Accordingly, the results presented in this paper provides preliminary evidence on the intricacies of curriculum design and process for business and accounting degree program.

4. Method

The study employs qualitative method. In particular, the primary data from the study is derived from focus group discussions (FGD). As mentioned in the introduction section, the respondents for this study are selected from UUM and UMT. Specially, the academics selected for the FGD are the academics who are involved in teaching undergraduate accounting programme. However, they may not necessarily teach accounting courses. Selected respondents may be involved in teaching other non-accounting courses such as business and management courses that are included in the undergraduate accounting curriculum. The selection includes diverse range of academics in terms of seniority, administrative experience, gender as well as field of expertise.
All academics are contacted beforehand. Agreement and consent to the interview and the recording of the interview are obtained from all participants. All participants were informed the objective of the research and the semi-structured questions that will be posted during the FGD session. In addition, the respondents were also informed that the interview will last between one and one hour and a half.

The FGD sessions were conducted with the presence of at least three researchers, with one researcher who acted as the principal interviewer in the session. The interview sessions were recorded and transcribed. The data is then coded and analysed in themes that correspond to the research questions, namely the teaching and learning method, which includes the assessments and the challenges in developing the curriculum. Data from the FGD transcription is coded and arranged into themes manually.

5. Results

Graduate unemployment is an ongoing issue facing the HE as HEIs are being criticized for not able to prepare students with the appropriate knowledge and skills upon graduating. Findings from past research showed that among the skills found to be inadequate include communication, critical thinking, problem solving (Ahmad & Rhouse, 2016; Fitzgerald, 2016; Munohsamy, 2015; Cranmer, 2006). Hence, HEIs are profoundly developing these skills into their curriculum design in order to prepare work-ready graduate. As one of key performance indicators of HEIs, employability could be seen as a reflection on the effectiveness of curriculum design and process of implementation by HEIs.

In Malaysia, HEIs generally refer to the guideline of the program standard issued by the accreditation body (Malaysia Qualification Agency) for curriculum development. This document outlines the minimum levels of acceptable practices that cover all the nine quality assurance areas: programme aims and learning outcomes; curriculum design and delivery; assessment of student learning; student selection; academic staff; educational resources; programme monitoring and review; leadership, governance and administration; and continual quality improvement. For example, in the curriculum design and delivery area, HEIs need to set out the appropriate teaching and learning activities that are aligned with the learning outcome and domain, as well as the assessment methods. The learning domain covers knowledge; practical or technical skills; critical thinking and problem solving, communication; interpersonal; professional ethics, entrepreneurial; leadership and teamwork skills. Graduate is generally expected to have acquired all of the learning domain upon graduation. The guideline serves as a basis for HEIs and academic staff in program and course delivery.
5.1 Current Teaching and Learning Practice in HEIs

Curriculum is the way content is designed and delivered. “The curriculum represents a conscious and systematic selection of knowledge, skills and values: a selection that shapes the way teaching, learning and assessment processes are organized by addressing questions such as what, why, when and how students should learn” (UNESCO International Bureau of Education, 2016: 6). Hence, we asked the academic staff who participated in the FGD the way they define and organize what is taught to improve student learning, including what to teach (learning outcome), how they teach it (teaching and learning methods) and how they determine whether the students have achieved the learning outcome or what the student have learned (assessment methods). The following themes are derived from the FGDs.

5.1.1 Teaching and Learning – Conventional vs Technology and Other Methods

When asked about the way academic staff deliver their course, all of the participants responded that they are still using lecture, seminar and supplemented by tutorials. However, for them, lecture and seminars do not adequately describe the current teaching and learning methods as it has developed as a response to the increasing use of technology (such as smartphone) as an enhancement to the learning process. Respondents from both HEIs emphasized the need to embrace technology in classrooms in an effort to keep abreast with the technological advancement that is rapidly progressing. Most of the participants use technology media to get attention from students, leading to student engagement towards what are being discussed in class. Students prefer mostly examples from other sources, such as commercial videos from Youtube, and any other real, contextual examples. The use of technology in this case is not only limited to the use of smartphones in the class, many of the participants pointed out the use of Kahoot (game-based learning platform) in class. The use of technology, according to the participants also extends to the use of software, example the use of auditing software in class. The respondents were of the opinion that the use of such technology in class provides “hands-on” experience which is highly beneficial to the students. This is noted in the following interview excerpts:

One participant quoted:

“….and then another approach is giving the hands-on approach, I mean hand-on skills on the certain accounting software or audit software, so it’s not just… prepare… the assignment...”

Meanwhile another respondent quipped:

“...technology will assist you to produce better graduates. Assist mean, make your teaching process, more dynamic..., more playful, and more effective and more efficient.”

Also, in an attempt to instigate the students’ interests of learning and to fulfil their roles more effectively, it is crucial that the lecturers attempt, or should attempt to be resourceful. Whilst working experience would be an advantage as the academics concerned can share and relate their experience to the theoretical concepts respectively to the students, such knowledge could also be
obtained by the academics through training. What is important is to impart the knowledge obtained in the training course to the students.

In the light of this matter, academic staff needs to decide on teaching and learning strategies that are fit for purpose, and to consider curriculum design, and the context that such a design provides for the teaching which brings it to life. In this regard, the participants argued and pointed out that the conventional lecture are unable to explain complexities of real-life business. To overcome this issue, in most courses, the lecture generally was followed by a discussion and analysis of short scenarios or case study. The scenario or case study allowed the concepts outlined in the lecture to be applied, reinforced, illustrated, and explained in greater depth. The interactive case-based discussion, which is more dynamic and interesting, not only provided students with experiential learning, but it also enhances their understanding, hence learning, and even improved grades. Some participants pointed out that the scenarios or case study used in the teaching and learning process are derived from the real-world issues and cases, which provides an exposure to the students to the issues faced in the real business world, using real company data. This is highlighted by a respondent in the following excerpt:

“….because they would need to discuss the costing of each of the technologies that they need to put in the planning, what is the ROI, the return on investment, calculate the ROI… and then they need to look at the impact of those -... of buying those technologies toward company, of buying those technology toward the employees..., the management, toward the stakeholders, because they need to do a lots of things....”

Accordingly, the use of this approach encourages the students to study situations beyond what is taught in the classrooms.

The use of problem-based learning (PBL) and case study in teaching and learning methods to foster deep learning will not only improve the students’ knowledge, but most importantly it enhances competencies such as critical thinking and communication skills, as well as human values. Students need a rounded set of skills that go beyond technical knowledge, and these skills include human values, such as empathy, interpersonal, negotiation skills. From the focus-group discussion, the researchers found that for most courses, students and academic staff collaborate in class to facilitate learning and open discussion. The academic staff believe that in a more collaborative classroom environment, a student is more likely to adopt a deep level approach to learning as they find learning is fun compared to passive learning in a lecture.
As mentioned earlier, the findings in the study are mapped and analysed in accordance with the framework outlined in UNESCO, which also focuses on assessments. In the light of this matter, it was found from the FGD in both HEIs that most of the courses apply group assignment. Some uses real case organization located nearby to the university, whereas some use videos from YouTube or field trip. Depending on the subject, the assessments may also include real-life experience of handling a project – for example selling goods in the online market (for entrepreneurship and e-commerce subjectives).

The participants claimed that the real-life experience approaches were able to enhance the students’ learning experience proved by improvement in the course grades at the end of the semesters. In addition, it also brings some other potential benefits to the students – i.e. by giving students the first-hand experience of selling products online and they were also able to generate extra income from that exercise. One of the respondents quoted the following:

“I can see the… some improvement in term of…. you know e-commerce class…, they can be an… online sellers. (…) and in fact…, some students really make money… so…, when I see that, I’m really happy so that method is really function…”

With regards to the soft skills, it is imperative to state that co-operative learning is defined as a learning process that is structured, done together, shared and support each other. That is, the academic staff design an activity and the students work on that activity in group. The activity is a goal-oriented activity that should stimulate interpersonal skills and at the same time the outcome of the experience can be controlled by the lecturer. Collaborative however, is about learning from interdisciplinary views. It can be achieved by discussion and information sharing. In this environment, the lecturer may act as a facilitator in order to stimulate the discussion while building the knowledge from individuals with different backgrounds. Every student is assumed as contributors to the learning process and the process usually involves problem solving task. In this setting, there would exist negotiation, mediation, listening, attempting and understanding which arises from conflict that occurred in the problem-solving process, as it collaborates all points of view. Thus, this is where learning happens. For this to happen, Mezirow (1997) mentions that the setting should include information’s full accessibility, coercion-free, equal opportunity, critical thinking, open-minded, information seeking willingness and the ability to voice out best judgement. Transformative is based on the composition meaning from individuals and social. That is, as pointed out by Mezirow (1997), learning by transformative way is by affecting the reference’s frame. In other words, by revising the present and past assumptions and revising the practice of understanding experience by critical reflection and self-reflection. For example, students may be given a task to establish collective goals. After that, collective action may be taken by the students, within their groups. Self-reflection should be embraced and emphasised to the students in order to empower them to change their perspectives. The results may differ to each student as transformative method itself left us with little sense on the possible outcomes of this method. And because of that, Taylor (1997) for example concludes that transformative learning is theoretically good but hard to be practiced.
In conclusion, the teaching and learning strategies discussed from the findings are in line with what has been suggested by Filho, Shiel and Paco (2016), there is need to “develop academic programmes that integrate sustainability and ensure that students develop the knowledge, values and competences to enable them to work with others to enhance the social and natural environment” (pg. 127).

5.2 Challenges Faced by Academia

Academic staff now teach mixed ability classes more than they ever used to as to cater the diversity of students, disciplines and stakeholders in business education, which produce tensions and challenging environment for academic staff. This section discusses the challenges and implications of teaching, learning and assessment activities at undergraduate level for business and accounting program at UUM and UMT.

5.2.1 Whether Assessments Truly Reflect Students’ Performance

The findings in the study are in line with the framework proposed by Moore (2005) for teaching and learning sustainability; co-operative, collaborative and transformative. The framework is based on interdisciplinary education that promotes experiential learning, as suggested by Cranton (1996). However, the main problem with this framework is, it is hard to achieve as current grading system in almost all universities emphasises on individual assessment. Assessments based on group assignments, although are quite commonly practiced in the HEIs are criticized by the respondents as they contend that the assessments do not help in infusing the dynamics amongst the overall students. According to a participant,

“Sometimes, we can see—... the weakness is, we can see that... the good is with the good team..., ((laughter)) the less good is with the less team. Because they choose their own friend....”

The practical solution for the above is to determine the members in a group. However, this leads to other problem,

“But I tried also..., I give them group..., group them..., happened to be.. the less would be sleeping partner and the good will do the work....”

Hence, the issues highlighted above is that the assessments method may not be truly reflective of individual students’ efforts – especially if the group is burdened with students who are “sleeping partners”. As a result, the essence of collaborative learning can’t be surely measured to everyone. The current grading system is carried on from the university’s long tradition of knowledge transfer in a responsive learning environment. Each student is expected to acquire understanding and expertise that are considered as necessities by the experts in the field. However, as time passing by, there exists a loophole that attracts questioning and arguing the existing paradigm and at the same time proposing new or alternative ways of thoughts.
5.2.2 Expectation Gap between the Academics and Industry

In addition to the challenges in assessments, another more important challenge that critically needs to be addressed is the expectation gap between the academics and the industry. Although the literature in the above mentioned that engagement with the industry will result in better learning experience to the students, it is also apparent that there is an expectation gap existing between the HEI as the provider of higher education to the public, and the industry as the end user in the cycle of production of graduates. This can be observed in the following quote:

“……we have…facing a challenge in terms of how do you deal with your students and make sure they learn whatever at outside (...) we are sitting inside, [ ].. they want we learn from outside, so.. this is a big challenge … even some…quoted this word, mismatch, OK?”

5.2.3 Time Constraint

The literature review in Section 2 above highlights that MOE has produced a framework and guidelines in producing graduates that possess holistic attributes. Related to this is the importance of evaluating the performance of the students as expressed by UNESCO. Whilst the goal is noble, the HEIs and the academics are laden with the issue of time constraint in carrying out useful, meaningful and effective evaluation. This is apparent in the following quotes.

One respondent quipped:

“…..we must observe the student for the whole semester! About the punctuality..., about the involvement... during the-... the group discussion... everything!, we have only 42 hours..., with the 11 topics to finish., and then it is we have enough time to observe our (students) for the whole semester?! So..., that is another constraint.,”

Whilst another one lamented:

“…..we have the evaluation of case study..., and we have the various evaluation-... various evaluation... so, we just-... for me., it’s a-... just like the Malays <kata, melepaskan batuk ditangga...>”

The opinion expressed by the respondents demonstrates strong feeling against the current system. Whilst it is good to have various assessments to assess the students, it is often impracticable to be implemented due to the time constraints faced by the academics as they have to complete the syllabus in the stipulated time. In addition, an important point raised is that having too many assessments hamper the spirit and the objective of providing a fair evaluation of the students. As they are many assessments taking place, the assessments are not currently really reflective and demonstrate the students’ true performance and capabilities.
6. Discussions

The findings obtained from the FGD analysis highlight the following important points. Firstly, the analysis of the FGD sessions implies that the philosophical presuppositions amongst the academics that underlie the current practices is that, respondents believe that they are a part of the community who are affected by the rapidly changing technological development and thus; they are in a way responsible to impart this knowledge and share it with the students through the teaching and learning process. Accordingly, the implication of this is that philosophically, the academics understand that in an attempt to encourage the students to embrace change, it is imperative that the academic themselves too need to play an important role by adapting themselves to the changing world. Hence, at the heart of the matter, it is crucial for the academics to realize the significant role that they play as educators in the delivery of the sustainable education. It is therefore crucial for academics to embrace the right attitudes, the right mind-set as well as being resourceful, open and adaptive to changes occurring in the business world. Only by having the right attitude and mind-set would the good values and the appropriate skills which would cascade to the students and help them to be more flexible, adaptive and sustainable in the industry.

Secondly, the FGD sessions highlights a critical issue that has for long so impinge the discourse between the academics and the industry. It is apparent from the interview that the respondents were having strong feeling about the expectation gap. What entails from this analysis is although the idea of having a holistic approach and sustainable education is noble and therefore should be strongly supported by the academics and industry, apparently, expectation gap is due to happen as the academic and the industry are both on the completely different spectrums in the course of producing sustainable graduates. This happens as the academics are responsible for the provision of education whilst the industry is the “end user”. Although the solution for this issue is not discussed in the FGD session, it is imperative to note that this is in fact a big challenge faced by the HEIs. To overcome this issue, the most practical and likely solution is to bridge the gap between the two by bridging the gap – bringing the academics to the industry and the industry to the academia. At the moment, MOE is currently addressing the issue by running the programme referred to as Academia-Industry Talent Exchange Programme (AIxCHANGE): CEO@Faculty Programme, as reported in the Ministry’s website.

Thirdly, the analysis shows that it is critical that the philosophical underpinning of the assessment exercise is given a deep reflection and thoughts. Assessments, at the heart of the matter should reflect the questions on students’ learning as presented by UNESCO; (mentioned earlier in the paper) as follows: what, why, when and how students should learn” (UNESCO International Bureau of Education, 2016: 6). In this manner having various assessments to assess the students’ performance is meaningless if it does not reflect the true potential and capability of the students, especially in the case of sleeping partners in the group and when the academics are facing time constraints in carrying out proper assessments of the students. If the assessments are not reflective of the students’ performance, it raises further critical question that needs to be addressed – “Is the current syllabus and current curriculum purports to be a syllabus and curriculum that results in sustainable and holistic graduates?”
7. Conclusion

The aspiration and quality of HEIs (HEIs) is about the marketability of its graduate in the job market, while achieving the university ranking as well as the contribution towards the academia and society, such as the research output contributed by the HE institution. Kementerian Pendidikan Malaysia (2015) state that these aspirations have been initiated in order to nurture the sustainable development of Malaysia as a whole and to maintain sustainable economic growth, which leads to a sustainable future. In other words, HEIs in Malaysia need to offer curriculum that inspires innovations in knowledge, skills, values or attitudes in order to achieve a sustainable future, based on a fair and desegregated approach in the area of economic, social and environmental, or in the interdisciplinary areas.

The current measurement used to evaluate students’ learning, such as test and examination, should be examine as the key challenge in the future is to develop yardsticks that can measure long-term impacts of education sustainability (Yarime and Tanaka, 2012). Furthermore, learning activities in the higher education has increasingly involves the industry players. Hence, it is important to prepare students with high critical thinking and excellence in communication (both written and verbal) for them to be more competitive. Deep learning such as case study, is suitable to be used as the tool in teaching and learning as it is connected with analytical skills, cross referencing, imaginative reconstruction and independent thinking which helped the students to engage deeply with the subject matter. Further, the usage of deep learning helps students to understand rather than merely to pass the assessment task and also it helps to develop a strong personal interest towards the course. Interest can be nourished through a more contextual interpretation and less emphasis on curriculum content (Warburton, 2003). It will be a great challenge for higher education to create an active, transformative process of learning that allows values of debate (Warburton, 2003). In addition, students with experience of group working are thought to be better prepared for the workplace (Fitzgerald, 2016).

As a conclusion, sustainable curriculum is a practicable theory and an integral action that should be undertaken by HEIs in order to not only ensure the continued survival of the institution itself, but more importantly to ensure the continued survival of the graduate and societies around. HEIs could respond accordingly to this call to action in many ways, especially through curriculum provided and research output. Nevertheless, there are still many unknown areas need to be charted and explored as sustainability is a broad concept in which dynamic and interdisciplinary serve as the main essence in encapsulating and achieving it.
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