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# Soft Skills Integrated in Sustainable Higher Education

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**Abstract:** Human capital development is crucial and necessary since it drives the nation to the envisioned vision and mission. It is a major challenge in the effort of developing people in order to achieve developed country with our own identity and able to compete at global level. A quality human capital comes from a quality education process. A properly designed and well planned higher education system is vital in developing such human capital. Instilling soft skills into the lives of future generation is aimed at developing their knowledge, understanding, values and skills which are the essence of education for sustainable development. There are seven elements of soft skills were identified, namely communicative skills, critical thinking and problem solving skills, team work skills, life-long learning and management of information, entrepreneurship skills, ethic, moral and professional skills and leadership skills. This paper discusses some aspects of sustainable development and how the soft skills elements which have been identified can realized the sustainable development in higher education.

**Key words:** higher education; human capital; soft skills; sustainable development

## 1. Introduction

Although skills are central to employment, the concept of skill in theory is poorly understood and the use of skills in practice leaves much to be desired (Grugulis, 2003). Today work performance is affecting a lot of changes to the concepts of knowledge, skills and attitudes that may contribute the pleasing successful performance. It is evident by surveys and empirical researches that employers are more concerned with mastery of soft skills rather than the traditional attitudes of emphasizing technical skills (Abdul Rashid Mohamed et al., 2007). The fact that some generic skills such as communication, problem solving and team work abilities is becoming increasingly important for efficient performance has also been the findings of some empirical researches (Abdul Rashid Mohamed et al., 2007).

The quality citizens are the most precious advantage of the country. Development of human capital and mind shift of the citizens is one big challenge. If we want a move towards a knowledgeable-based economy and be a sustainable first world country, the development of human capital should be a main concern. In the context of a global world, a high quality of human capital is a requirement. As such Malaysia is significantly accelerating the development of quality human capital (statement made by former Prime Minister of Malaysia, Datuk Seri Ahmad Badawi Abdullah when presenting the 9th Malaysian Plan in Parliament, 31 March, 2006). Human capital that produced through Malaysian Education System must possess the following three characteristics: (a) possess knowledge, mastering varies knowledge in order to compete at international level; (b) good health so that are able

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to implementing their duties without taking leave/medical certificate, and (c) matured personality which are included committed to their job, responsibility, no corruption and trust-worthy (Malaysian Teacher Day message, 26th June 2006).

The importance of creating a quality human capital was further felt when 29 billion Malaysian Ringgit or 21% of the Year 2006 Budget was allocated to increase the human capital potential through education and training to about 5.7 million students. This is to ensure that Malaysian citizens are excellent in acquiring knowledge and skills as well as having a unique characteristic. At the same time, we have been surprised by the news (The Sun, July 05, 2006) stated that there are 70% of the public university graduates are unemployed. This is in contrast with 26% for private institutions of higher learning and 34% for foreign graduates (Maria, 2008). At that time, the Higher Education Minister Datuk Mustapha Mohamed did take into considerations about the complaints from employers that graduates lacked soft skills. Hence, he announced that public universities will be conducting “soft skills” modules for all undergraduates by the next intake for Year 2007.

The prominence on human capital has always been an important administration strategy. In line with the globalization, national education development is very vital to be alarmed in order to promote the country to the global level and thus be able to compete in the international ground. Sustainable development in higher education thus signals a obligation to produce an integrated human capital, educated individuals who contribute to the development of a quality livelihood of society and also to a harmonious nation’s surroundings.

According to the then Prime Minister, the approach to develop human capital should be holistic. Holistic in this sense means the development of knowledge, skills, intellectuality including literacy in Science and Technology and entrepreneurship. It also involves the inculcation of progressive attitudes and high ethical and moral values. This is hoped to produce a first class mindedness holistic human capital. It was proofed that infusing soft skills into the higher education curriculum might possibly contribute to the development of a holistic human capital who can consider of expectations in which environment, societal and economic considerations are balanced in the search of development and improved quality of life.

One aspect that can assist in promoting the quality of education is to improve the teaching and learning system. As such the higher education institution should be able to play the role of an information disseminator or human capital that are not only knowledgeable but also possess all the characteristics of a holistic individual. Higher institutions in Malaysia are moving forward to sustain and maintain the development of an entire and integrated human capital. The development of human capital is one of the national agenda in the 9th Malaysian Plan as envision by the former Prime Minister of Malaysia. This in turn is related to the quality of the graduates from the higher education institution in Malaysia. Some of the weaknesses identified of the graduates are that, they are very lacking in soft skills which demanded by society and the competitive job market. Hence, the higher education institutions are urged to produce quality graduates who are uniformly intelligent, acquire outstanding attitudes and high ethical and moral values.

As such, in the launching of soft skills in the Public Universities in Malaysia Year 2007, seven soft skills and some of the strategies undertaken by the local universities to infuse them into the higher education curriculum were identified. This paper will discuss some aspects of sustainable development and how the soft skills identified can be integrated sustainable development in higher education.

## 2. Education for Sustainable Development

Education for sustainable development (ESD) is an approach to the whole curriculum and management of an institution included schools, colleges, universities, organizations etc. (http://www.esdtoolkit.org/references.htm). It has its origins in environmental education and development education and it is no longer a fresh subject. Therefore, many of the structuring blocks of education for sustainable development are already present in most of institutions especially in university. ESD aims to help students to develop the attitudes, skills and knowledge to make informed decisions for the benefit of themselves and others, now and in the future, and to act upon these decisions. As such, the key elements of effective ESD included curriculum, approaches to teaching and the learning, and students' experiences.

There are three terms that are used concurrently and interchangeably, namely education for sustainable development (ESD), education for sustainability (EfS) and sustainable education (SE). Of the three, ESD is most common used because it is the terminology used commonly at the international level. However, it is important to distinguish between education about sustainable development and education for sustainable development (ESD). The first is an awareness lesson or theoretical discussion while the latter is the use of education as a tool to achieve sustainability. In higher education, there is a requirement to go beyond awareness, and in this case, 'for' indicates a purpose whereby all education serves a purpose (http://www.esdtoolkit.org/references.htm).

Education is held to be central to sustainability. However, the difference between education as we know it and education for sustainability is mysterious. Nevertheless, education and sustainability are inextricably linked. There are four major thrusts to begin the work of ESD (UNESCO, 1986): (1) improve basic education, (2) reorient existing education to address sustainable development, (3) develop public understanding, awareness, and (4) training.

### 2.1 Improving Basic Education

The first priority of ESD as outlined in Chapter 36 of Agenda 21 (UNESCO, 1986) was to encourage basic education. The content and years of basic education vary to a great extent around the world. For example, in Malaysia, primary school is considered basic education and is compulsory for all children at the age 7 onwards. Much focus is being put on the basic skills as 3R (Reading, Writing and Arithmetic). It is at this stage that children begin to correspond through the three basic skills and further develop these skills as they proceed higher in the education system. These generic skills are essential and necessary to fulfill their respective roles in future.

Improving basic literacy will not necessarily progress sustainable societies (UNESCO, 1986). This is currently carried out by most countries when they re-looked and assessed their curriculum from time to time. What most countries fail to focus is the skills, values and perspectives that support education for sustainability. Thus basic education must be reoriented to attend to sustainability and prolonged to include critical thinking skills, skills to organize and interpret data and information, skills to formulate questions and the capability to analyze issues that deal with communities.

The current level of basic education in most countries is also low, thus hindering plans for a sustainable future (www.esdtoolkit.org/discussion/wahtisesd.htm). For example, Latin America and the Caribbean have 6-8 years of compulsory education with 5-15% of the children repeating one or more years. Some parts of Asia such as Bangladesh, Pakistan and India have children attending school for only 5 years. Girls also receive fewer years of education than boys. The drought and wars in parts of Africa hindered education for the children. The impact of little and/or poor quality education rigorously limits the options available to a nation for developing its short and

long term sustainability plans (http://www.esdtoolkit.org/discussion/wahtisesd.htm).

**2.2 Reorienting Existing Education**

Reorienting education is necessary at every level starting from kindergarten through university and educators and administrators must understand the changes required for ESD. An appropriately reoriented existing education (basic and secondary education) should consist of more principles, skills, perspectives, and values related to sustainability which is currently not integrated in most education systems. Quantity of education is not important but rather the suitability and relevance. Since ESD encompasses a vision that integrates environment, economy and society, reorienting education also requires teaching and learning knowledge, skills, perspectives and values that will steer and stimulate people to track sustainable livelihoods, to participate in a democratic society and to live in a sustainable style (http://www.esdtoolkit.org/discussion/reorient.htm).

In spite of that the need to reorient basic and secondary education to attend to sustainability has captured international attention nevertheless the need at tertiary level is evenly important. This is because society's future leaders and decision makers are educated in the higher education institutions. These are the young generation anticipated to lead all sectors of society such as government, medicine, agriculture, forestry, law, business, industry, engineering, education, communications, architecture and arts and others in a world determining sustainability. As such the current universities administrative team and faculty members must reorient university curriculums to include the many and complex components of sustainability.

Reorienting education to attend to sustainability is something that should happen continuously throughout the formal education system such as universities, professional schools, and technical schools in addition to primary and secondary education.

**2.3 Public Understanding and Awareness**

Sustainability requires a population that is aware of the goals of a sustainable society and has the knowledge and skills to contribute to those goals. With increase number of democratic governments, there is a need for an well-versed community which lends support to enlightened policies and government initiatives so as to assist government perform sustainable measures. In today's world, people are bounded by media, for example television, radio, newspapers, magazines and advertisements such as bill boards, banners on World Wide Web sites, and logos. As such, citizens must become media literate and able to analyze the messages of corporate advertisers and also knowledgeable consumers who can see beyond the 'green wash' (i.e., public relations efforts that highlight the activities of corporations that are more environmentally responsible while ignoring or hiding the major activities that are not).

Years of resource management has shown that a public that is aware of and informed about the resource-management decisions and programs can help achieve program goals. Alternatively, an uninformed public can undermine resource-management programs.

**2.4 Training**

The world needs a literate and environmentally aware community and work force to help guide nations in implementing their sustainability plans. As such all sectors including business, industry, higher education, governments, non-governmental organizations (NGOs) and community organization are encouraged to train their leaders in environmental management and to provide training to their workers. Training is different from education in that training is often specific to a particular job or class of jobs. Training teaches individuals how to use apparatus safely, to be more efficient and comply with regulations. Training also informs people of accepted

practices and procedures and gives them skills to perform specific tasks. In contrast, education is a socially transforming process that gives people knowledge, skills, perspectives, and values through which they can take part and contribute to their own well-being and that of their community and nation.

## 3. Formal, Non-formal and Informal Education

Implementing ESD is a huge assignment for any community or nation. Fortunately, formal education does not carry this educational responsibility alone. The non-formal education sector such as centers, non-governmental organizations, educators and agents and the informal education sector for example television, newspaper and radio of the educational community must work courteously with the formal educational sector for the education of people in all generations and walks of life. Since ESD is a lifelong process, the formal, non-formal, and informal educational sectors need to work together to achieve local sustainability aspirations.

## 4. The Importance of Sustainable Development in Higher Education

In this era of transformation and globalization, higher education has a responsibility to produce human capital that is not only professional of the future but also responsible citizen. Higher education need to cultivate the human capital with the skills and attitudes that will allow all people, present and future, to have a decent quality of life, fair and equitable access to the earth's resources and protect the biological diverse ecosystems on which we all depend. Helping create a sustainable society is a social responsibility both for the educators of future leaders in society and for our graduates in their professional and personal lives.

Sustainable development in higher education will enable students to develop a personal review of society and generate graduates who are ideologically aware and socially critical. It also eases 'deep learning' in other areas. For instance, active learning strategies can help develop generic skills such as critical thinking, 'systems' thinking, teamwork, ability to manage change, oral and written communication, negotiation or time management. These skills as can be observed are preferred by most employer groups.

The social, political and economic implications of sustainability set new demands on many professional groups in society, across government, industry and community sectors. It is more so for an education university to recognize and develop a better understanding of practices that can attain preferred outcomes in ways that advance, not detract from, efforts to move toward sustainability. As such it is extremely important to educate and train students as professional of the future and responsible citizens to undertaking the above obligations. If students understand sustainability as an aspect of their social and ethical responsibility, they will become citizens who see themselves as attached to the natural world and to other humans. Thus, they will have the ability to ease the development of activities that sustain rather than degrade. Higher education institutions must provide the awareness, knowledge, skills and values that furnish individuals to pursue life goals in a manner that sustains human and non-human well-being for all current and future generations.

Critical to achieving the goals of sustainability is learning for understanding. Higher institutions play its role to ensure that it is enabling learning that is reliable and deep. This stringently refers to inquiry-based learning as being innovated in the science curriculum of the country. The inquiry-based learning is driven and motivated by the students and their curiosities about the world they live in. Problem solving, problem-based learning and future perspectives are examples of inquiry-based curriculum approaches that support education for sustainability. Active

learning: Project work can offer experiential and problem-based learning and also encourage awareness of sustainability aims. The flexibility of project work enables students to bring their own sustainability concerns of the general education agenda. Students should also have the capability to develop creativity and imagination. Both area important thinking and learning tools that can encourage viewing the challenges of sustainability from multiple dimension. This will promote development of alternative understandings that inform and develop innovative sustainable practices.

## 5. What are "Soft Skills"?

In the Malaysian context, soft skills can be said to integrate all aspects of generic skills that comprise the cognitive elements associated with non-academic skills (Ministry of Higher Education, Malaysia, 2006). Though there are no specific soft skills, however majority of these skills are coupled with positive values, leadership skills, team work force, communicative skills and life-long learning. Soft skills are identified to be the most vital skills in the current global job market especially in a fast moved era of technology (Ministry of Higher Education, Malaysia, 2006). The reorientation of education which is a trust of education for sustainability also relates the importance of these so-called soft skills. As such, graduates from higher learning institutions who are required to meet the needs of the job market by attaining the above mentioned soft skills will indirectly be exposed to the skills envision in ESD.

Vast research and expert opinions were sought in the effort to determine the specific soft skills to be implemented and used in higher learning institutions in Malaysia. Based on the research findings obtained, seven soft skills have been identified and chosen to be implemented to all higher learning institutions in Malaysia. They are:

(1) Communicative skills.
(2) Thinking skills and Problem solving skills.
(3) Team work force
(4) Life-long learning and Information Management
(5) Entrepreneur skill
(6) Ethics, moral and professionalism
(7) Leadership skills

(Ministry of Higher Education, Malaysia, 2006)

Each of the above soft skills comprised of several sub-skills. These sub-skills are separated into two categories of implementation. The first category outlines the soft skills that every individual must have and the second category represents soft skills that are good to have. Despite the prominence being put on the soft skills that must be present (must have), it is also encouraged to instill the soft skills that are good to have. All elements of soft skills that have been suggested by the Ministry of Higher Education, Malaysia must be obtained by each student and assessed effectively and comprehensively. Table 1 shows the seven soft skills and the two categories of sub-skills respectively.

The must have soft skills must be acquired by each individual in the higher learning institutions without which, the student is considered as lacking ability in the above skill. The good to have soft skills can be considered as the additional generic skills and a bonus to the student. These skills are anticipated to be obtained by the students together with the must have soft skills. Table 1 gives a detail explanation of the different categories of implementation for each of the sub-skills for the respective seven soft skills.

**Table 1 The "Must Have" and "Good To Have" Elements of Soft Skills**

| No. | Soft Skills | Must Have Elements (Sub-Skills) | Good To Have Elements (Sub-Skills) |
|---|---|---|---|
| 1 | Communicative Skills | Ability to deliver idea clearly, effectively and with confidence either orally or in writing.<br>Ability to practice active listening skill and respond.<br>Ability to present clearly and confidently to the audience. | Ability to use technology during presentation.<br>Ability to discuss and arrive at a consensus.<br>Ability to communicate with individual from a different cultural background.<br>Ability to expand one's own communicative skill.<br>Ability to use non-oral skills. |
| 2 | Critical Thinking and Problem Solving Skills | Ability to identify and analyze problems in difficult situation and make justifiable evaluation.<br>Ability to expand and improve thinking skills such as explanation, analysis and evaluate discussion.<br>Ability to find ideas and look for alternative solutions. | Ability to think beyond.<br>Ability to make conclusion based on valid proof.<br>Ability to withstand and give full responsibility.<br>Ability to understand and accommodate oneself to the varied working environment. |
| 3 | Team Work | Ability to build a good rapport, interact and work effectively with others.<br>Ability to understand and play the role of a leader and follower alternatively.<br>Ability to recognize and respect other's attitude, behavior and beliefs. | Ability to give contribution to the planning and coordinate group work.<br>Responsible towards group decision. |
| 4 | Life-Long Learning & Information Management Skill | Ability to find and manage relevant information from various sources.<br>Ability to receive new ideas to perform autonomy learning. | Ability to develop an inquiry mind and seek knowledge. |
| 5 | Entrepreneurship skill | Ability to identify job opportunities. | Ability to propose business opportunity.<br>Ability to build, explore and seek business opportunities and job.<br>Ability to be self-employed. |
| 6 | Ethics, Moral & Professional | Ability to understand the economy crisis, environment and social cultural aspects professionally.<br>Ability to analyze make problem solving decisions related to ethics. | Ability to practice ethical attitudes besides having the responsibility towards society. |
| 7 | Leadership skill | Knowledge of the basic theories of leadership.<br>Ability to lead a project. | Ability to understand and take turns as a leader and follower alternatively.<br>Ability to supervise members of a group. |

## 6. The Ways of Soft Skills Integrated in Sustainable Higher Education

It can be observed that education is an vital device for achieving sustainability. We all realized that the current economic development styles are not sustainable and that public awareness, education and training are the key elements to move our society towards sustainability. Having understood the meaning of education for sustainable development (ESD), education for sustainability (EfS), and sustainable education (SE), we can now understand why Malaysia is striving to develop and produce a human capital that has the qualities and skills to understand and practice ESD, EfS and SE. Only a quality future human capital can visualize development of its nation to meet the needs of the present without compromising the capability of future generations to meet their own needs. It can be observed that the soft skills identified here jived well with the skills necessary for sustainable development. Therefore, the inculcation of soft skills among the students will be two points, to produce quality human capital as well as to develop their knowledge, understanding, values and skills. How the two skills blend together will be discussed.

### 6.1 Communicative Skills

The communicative skills entail effective communication in both the national language of Malaysia and English language in different contexts and with different people. There are eight sub-skills under communicative skills of which three are the must have skills and five are the good to have skills. Communicative skills are an essential part of any education system either in higher education or lower education. As mentioned earlier, in many countries, basic education or primary education is compulsory and it focuses on reading, writing and arithmetic. People learn to read books, write letters, figure accounts and develop skills necessary to fulfill their expected roles in their households and community. At this very level, emphasis has been given to develop the communicative skills of individual so that by the time they leave university, they are able to take part in public and community activities and decision making. What is found to be omitted in the nation's present human capital is the lack of communicative skills. The absence of good communicative skills somehow or rather has an influence on the poor presentation of their views and decisions made to get others' confidence and respect. Communicative skills have also been significantly emphasized in the reorientation of basic education for ESD which is: the ability to communicate effectively, both orally and in writing. The communicative skill seemed to be one important element that lacks in the future human capital of Malaysia. This is more so with the implementation of the English language. The incompetence of the future graduates to master both languages will be a set-back to a lot of potential development and improvement of the country. Thus, this is a good time to relook the curriculum of higher institutions to embed communicative skills.

### 6.2 Critical Thinking and Problem Solving Skills

This skill includes the capacity to think critically, creatively, innovatively and analytically. It also involves the capability to apply knowledge and understanding to new and different problems as well. For ESD to be successful, it must give people useful skills that will enable them to continue learning after they have leave school, to have a sustainable livelihood and to live sustainable lives. The critical thinking skills, skills to organize and interpret data and information, skills to formulate questions and the capability to analyze issues that deal with communities are greatly addressed in the reorientation of basic education in ESD. The following are some examples of skills that comply to ESD and some of these skills are similar to the "soft skills" being emphasized in the curriculum of higher education in Malaysia. All the skills are important and students will need them as adults.

(1) The capability to think about systems (both natural and social sciences).

(2) The capability to think in time-to forecast, to think ahead, and to plan.

(3) The capability to think critically about value issues.

### 6.3 Team Work Skill

The team work skill means the ability to work with people from different social cultural background to attain a general aspiration. Students are encouraged to play their responsibility in the group and to respect views and attitudes of others in the group. They are also supposed to contribute to the group's plan and match up the group's effort besides being responsible to the group's decision. This skill is also part of ESD as stated in the reorientation of basic education, the capability to work cooperatively with other people. If the future human capital can managed these skills, we can be rest guarantee that the future generation will collaborate ideas and cooperate a taskforce towards the well-being of the nation.

### 6.4 Life-long Learning and Management of Information

This skill engages an attempt to learn to be independent or self-regulated learning in acquiring skills and new knowledge. The capability to find and manage pertinent information from a range of sources is also a standard of this

soft skill. Besides, students are also anticipated to develop an inquiry mind and desire for knowledge. As pointed out earlier, these characteristics are equally important in ESD in order for an individual to be media literate and consumer knowledgeable. Life-long learning will enable individuals to accumulate as much knowledge and skills over the years. The capability to manage information well, will allocate an individual to differentiate between good and bad, to adopt the best practices and to make sound decisions.

**6.5 Entrepreneurship Skill**

Entrepreneurship skill refers to the capability to seek business opportunities and develop risk awareness. It also involve being creative and innovative in activities related to business and tasks. To be able to design and plan business propositions and the capability to be self employed is one aspect of entrepreneurship skill. This skill can in some ways contribute to ESD if the training and practice is done for a good a purpose.

**6.6 Ethics, Moral and Professional Skill**

These ethic, moral and professional skills are the ability to perform a high moral standard in professional tasks and social interaction. These skills also include the capability to analyze ethical problems and make problem solving decisions. Having a sense of responsibility towards society is another standard of this soft skill. A majority of the skills and values of ESD also emphasized these soft skills.

**6.7 Leadership skill**

Leadership skill indicates the capability to lead in various activities and tasks. This is an important standard in ESD for planning and implementing ideas in a group. This skill is also important to lead in discussion and make decision.

## 7. Model for Implementing Soft Skills in Higher Education

A holistic approach is used to plan and implement the soft skills among students of higher education. This approach is based on the combination of several programs and main activities; formal teaching and learning activities included all curricular and co-curricular elements; support programs such as academic and non-academic focused and the students' campus life, for example students' residences and the campus surroundings. Figure 1 below shows the framework for implementing soft skills among students of higher institutions in Malaysia.

**7.1 Development of Soft Skills through Formal Teaching and Learning Activities**

In general, the development of soft skills among the students via the formal teaching and learning activities takes three models: (1) stand alone subject, (2) embedded and (3) combination of the two models.

7.1.1 Stand alone subject model

The stand alone subject model uses the approach of training and providing opportunities to students to develop soft skills through specific courses that are carefully planned for this intention. Generally, these subjects are offered as university courses such as English language, Islamic civilization, entrepreneurship etc and elective courses such as public speaking, critical thinking etc. The courses in this category are often a part of the overall requirements that make up the program. The number of courses and credits in this category depends on the curriculum design and the requirements of the program. The stand alone subject model can also be commenced by encouraging students to sign-up several additional courses which can be accumulated to be a minor course which is different from the initial program signed-up. For instance, a student who is pursuing an education program is encouraged to take minor courses in business management or mass communication. However, such an approach will require an increase in the number of credits and time spent for the particular program.

7.1.2 Embedded model

This embedded model uses the approach of embedding the soft skills in the teaching and learning activities across the curriculum. It does not require the student to take special courses as in the stand alone subject model. As a substitute, the students are trained to master the soft skills through various formal teaching and learning activities that are planned and carried out using specific strategies and methods. In this way, the content and learning outcomes to be attained for the respective courses are maintained. The learning outcomes related to the soft skills will be integrated and be part of the learning outcomes of the respective courses. This is the suggested model to be implemented in all the courses for the different programs in higher education institutions. Each element of soft skills is spelled out in the learning outcomes and then translated into the instructional plan for the semester. This is followed by implementing several teaching and learning activities such as questioning, class discussion, brain storming, team work, presentation, role play and simulation, task/project, field work and site visits.

In general, the development of soft skills using the embedded model requires the expertise of the lecturers to use the various teaching strategies and methods that are totally student-centered. It also involves active teaching and learning and students should take part actively in the activities. Some of the suitable strategies and methods that are practical include (1) learning by questioning, (2) cooperative learning, (3) problem-based learning (PBL), (4) e-learning.

7.1.3 Combination of stand alone subject model and embedded model

Each of the respective models described above has its weaknesses and strengths. From the framework, planning, implementing and assessment, the stand alone model is definitely at an advantage. This is because the course or subject is specially developed to help students to obtain the soft skills. However, this model lacked the chance for students to develop and obtain soft skills as integrated with other knowledge and skills in the major discipline studied. The existing number of credits for the respective program is also a restriction for students to sign-up for additional courses on soft skills.

On the contrary, the framework, planning, implementing and assessment of the embedded model are more challenging than the stand alone model. This model requires the lecturers to master specific teaching and learning skills and then apply these skills in teaching the respective core courses for the specific program. However, when carefully planned and used the appropriate teaching and learning strategies, this model is more effective in developing and acquiring the soft skills as integration with the other knowledge and skills in the program. In addition, this model does not require any additional courses to the already existing courses of the respective program.

Based on the weaknesses and strengths discussed, the higher education institutes are encouraged to use the embedded model as compared to the stand alone model. This is because the embedded model focus on student centered learning such experiential learning, problem-based learning and gives students the practical experience as well.

**7.2 Development of Soft Skills through Support Programs**

This involves programs and activities that are created, developed and used to support soft skills either directly or indirectly. In general, the program and activity can be divided into two: (i) academic support program and (ii) non-academic support program.

7.2.1 Academic support program

The academic support program is to help students acquire the soft skills that are linked with academic matters. Some of these programs consist of ‘Learning Skills’ and ‘English Language Support Program (ELSP)’.

7.2.2 Non academic support program

As for the non-academic support program, it assists students to obtain the soft skills that are not related to academic matters but more of personality and professional development of the students. Most of the programs and activities are in the form of co-curriculum and extra co-curriculum.

**7.3 The Development of Soft Skills through Campus Life Activities**

Most of the university students spend half of their students' life living in residences in the university campus. As such, higher learning institutions should use this great opportunity to develop their soft skills. This can be done through carefully crafted programs and carrying them out in the conducive campus grounds.

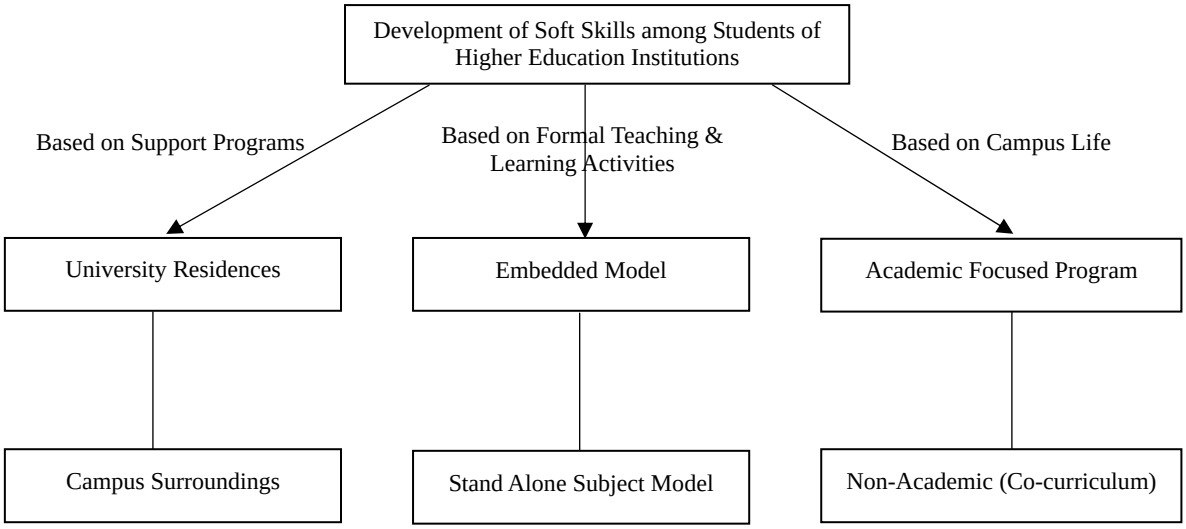


**Figure 1 Development of Soft Skills among Students of Higher Education**

## 8. Conclusion

To exist to the challenge of globalization which is in line with the era of information economy, the strength of a nation is strongly dependent of the capability of its citizen to be highly intellectual and skillful. The development of human capital is important and necessary since it compels the nation to the foresee vision and mission. Without a quality human capital, a nation will be weak as there is no human factor that is competent to embark on new initiatives and perspectives. A quality human capital comes from a quality education process. A carefully designed and well planned education system is critical to developing such human capital. Thus, higher education institutions play a very vital role to produce a human capital that is highly knowledgeable and skillful to meet the demand and expectations of many people. The teaching and learning processes in higher education institutions should be capable to provide such knowledge and skills to future graduates.

Although the idea of sustainability was not entailed in the embedding of the above soft skills in the curriculum of higher education, it appeared as an essential skill during the implementation stage and the essence of sustainability is well reflected in the desires of the Malaysian government to develop a quality human capital. Therefore, it is hoped that infusing soft skills into the lives of future generation is also aimed at developing their knowledge, understanding, values and skills which are the spirit of education for sustainable development.

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