

INCULCATING SOFT SKILLS IN UMP ENGINEERING STUDENTS THROUGH `RAKSI' PROGRAM

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Abstract

Technical skill is one of the most important elements needed amongst students especially Engineering students. Nevertheless, Soft Skills should not be ignored and lately, it has been given a great attention. Students with good grades will usually excel even better if they have high Soft Skills. Soft Skills also known as *Kemahiran Insaniah (KI)* is one of the listed skills needed by the industries in job advertisement or during job interview. With this fact, Universiti Malaysia Pahang has taken the initiative to introduce UHS1011 (Soft Skills 1) in students' program curriculum and this subject is valued as one credit hour since academic session 2004/2005. UHS1011 (Soft Skills 1) is carried out throughout 14 weeks with 14 modules where students will be evaluated based on their participation in a program called RAKSI (*Rakan Siswa*). RAKSI is handled by competent facilitators which are selected among UMP academic associates (lecturers and tutors). The modules were developed by UMP Felo Institute where all activities have a continuity to implement communication skills, leadership skills and teamworking skills. Most activities will use psychomotor, cognitive and emotional approaches. Students will communicate with each other, solve problems given to them, interact while listening to instructions given by a leader in the activity. This paper hopes to expose how RAKSI has helped to implement Soft Skills elements through a structured program and also evaluate the effectiveness of the module to the students.

Kata Kunci: Soft Skills, RAKSI, Communication, Leadership, Teamworking

1. Introduction

Is Malaysia the only country with unemployed graduates? Is Malaysia the only country lacking of 1st class graduates? What happens when RMK9 demands to see Malaysia successful in developing international competitive human capital? What is the role of public and private universities in producing intellects who are the future leaders for our country? Quoting a report from The Star, dated 13 June 2008, it is a glaring situation where Britain, Australia and Korea are also facing the same problem where the graduates have low level of Soft Skills:

A report from Britain,

“According to a report by the BBC, four out of 10 large employers in the United Kingdom expect to struggle to fill graduate vacancies because of a shortage of applicants with the right skills. The report quoted the findings from a biannual survey by the Association of Graduate Recruiters, which said employers found many graduates lacking in soft skills. The report stated that employers feel that there is an “inadequate supply of applicants of sufficient calibre.... Candidates are normally academically proficient but lacking in soft skills such as communication as well as verbal and numerical reasoning.”

This article shows that most developed countries are also facing overflow of unemployed graduates which are lacking in Soft Skills competency and this issue has been penetrating the global attention especially to all educationists throughout the world.

In Australia, a research conducted by Monash University shows that 1/3 from all international students which graduated from the university has a very low competency of English Language. This research also shows that students from South Korea has the lowest percentage which is 55.5% and this definitely will not fulfill the market in industries in Australia. This is followed by Thailand (50.9%), Nepal (47.9%), Taiwan (47.4%), China (43.2%), Hong Kong (42.9%), and Japan (36.8%). 23.5% from Malaysia students also do not fulfill the English Language verification needed in Australia.

Regarding the importance of Soft Skills, almost all industries highlight the importance of graduates to have technical skills and high Soft Skills to ensure employability opportunities when they graduate later on. The high demand from almost all workplace organization has somehow pushed all universities either public or private to work hard in infusing Soft Skills in formal education such as academic classes or informal settings such as co-curriculum.

This is proven from an article taken from Berita Harian (1 July 2007) where according to Managing Director of Taylor's Education, Datuk TN Loy, on the role of Taylor's College in higher education system in Malaysia,

“Sebagai penyedia perkhidmatan pendidikan berkualiti, kami akan memastikan setiap program dikendalikan dengan sempurna, selain menyediakan kemudahan terkini dengan kadar yuran yang berdaya saing. Kami tidak berkompromi mengenai kualiti kerana ia adalah pemangkin kepada usaha melahirkan modal insan berdaya saing.”

“As a feeder to quality service education, we must ensure that every program is perfectly handled, besides providing the latest facilities with competitive fees. We will not

compromise in quality because that would be the catalyst to the effort in building competitive human capital.”

To quote important messages from the Dean of Faculty of Chemical Engineering & Natural Resources of Universiti Teknologi Malaysia, taken from Berita Harian (Saturday 5 Jan 2007) on the role of universities, he said,

“.....university must produce graduates who will be accepted by the job market through their knowledge and skills while creating new job opportunities....University is also quoted by Datuk Prof Khoo Kay Kim, has been focusing in developing 1st class human capital and knowledge culture. This is due to the fact that almost all universities including public universities in Malaysia prepare academic programs which are relevant to the job market.”

“....universiti harus melahirkan graduan yang boleh diterima seadanya dari segi pengetahuan serta kemahiran oleh pasaran kerja, sekali gus mencipta peluang pekerjaan baru.... Universiti juga nampaknya, seperti pengamatan Datuk Prof Khoo Kay Kim, semakin tersudut dalam konteks pembinaan minda kelas pertama dan pembudayaan ilmu. Ia disebabkan ketika ini tumpuan hampir semua universiti, termasuk universiti awam di Malaysia, ialah penyediaan program akademik yang relevan dengan pasaran kerja.”

What is the meaning of 1st class human capital? He then explains,

“Other aspects related to 1st class human capital dan cultivating knowledge are superb in communication and intellectual discourse, great personality and idelisme which are longer exist as important assests. In fact, this personality could hardly be found in the campus. Students are now only focusing on and committed to academic performance – not cultivating knowledge and developing 1st class human capital whereabout this has

profoundly proved that students are extremely weak in Soft Skills. Students and graduates from public universities are said to be competent in communication, critical thinking, teamworking skills, continuous learning and entrepreneurship spirit. Futhermore, some question their capability from ethics and leadership aspects.”

“Aspek lain yang ada kaitan dengan minda kelas pertama dan pembudayaan ilmu seperti keterampilan berwacana, keperibadian unggul dan idealisme nampaknya tidak lagi menjadi aliran dan aset penting. Malah, personaliti seperti itu semakin tidak menyerlah di kampus. Dalam aspek fokus dan komitmen kebanyakan pelajar ialah kelulusan akademik – bukannya pembudayaan ilmu dan pembangunan minda kelas pertama – maka kelemahan ketara dari segi kemahiran insaniah. Pelajar dan graduan termasuk daripada institusi pengajian tinggi awam (IPTA) dikatakan tidak begitu cekap dalam berkomunikasi, berfikiran kritis, bekerja secara berpasukan, pembelajaran berterusan, semangat keusahawanan. Malah, ada juga yang meragui keupayaan mereka dari segi etika dan kepemimpinan.”

With regard to that, the initiative taken by Ministry of Higher Education to build and implement Soft Skills (KI) module in all universities around Malaysia on 22nd Aug 2006 by The Minister of Higher Education was one smart move to emphasize the Soft Skills elements needed to help students to develop themselves in becoming a world class Malaysian. The Soft Skills elements identified in the module are:

1. Communication Skills
2. Critical Thinking Skills and Problem Solving Skills
3. Teamworking Skills
4. Lifelong Learning and Information Management
5. Entrepreneurial skills

6. Ethics and professional values

7. Leadership Skills

2. The Development of RAKSI Program at UMP

The excitement of implementing Soft Skills in all universities is fully supported by the UMP Students Affairs and Alumni Department (HEPA) which is the anchor for various activities carried out in UMP. Many activities are planned with the implementation of Soft Skills among students especially in non-academic activities. In the context of Higher Learning Institution, the involvement of students in activities organized by HEPA covers sports and recreation, clubs, societies, debates, seminars and training activities which are taken as a yardstick in Soft Skills which emphasizes on the implementation of good moral values. Great development such as students' activities paper work preparation by UMP students which support Soft Skills elements is seen as a revolution to design and create our own UMP students' model.

The establishment of RAKSI Module Committee led by the Dean of HEPA himself is seen as a positive step in strengthening Soft Skills at UMP. The team members consist of Principals from 3 residential colleges, all wardens/fellows at UMP and they managed to complete a comprehensive module to be executed as a 1 credit subject starting 1st sem 2008/2009 session. Almost all of them are academic staff where they have given their full commitment in developing a creative and innovative module. A 'Training of Trainers' workshop was conducted for 40 facilitators from academic staff including Lecturers, Tutors, Teaching Engineers and Vocational Training Officer who have voluntarily, hand in hand developed RAKSI Module among UMP students.

This module is designed based on 4 relevant issues:

1. Improvisation of the existence RAKSI module which has originally wholly developed by HEPA staff.
2. 5 UMP Core Values
 - i. Strong Bond With The Creator
 - ii. Steadfast in Upholding Shared Principles
 - iii. Creative in Making Wise Decisions
 - iv. Resolute in Facing Challenges
 - v. Proactive in Taking Actions
3. 5 UMP Soft Skills Elements
 - i. Leadership Skills
 - ii. Teamworking Skills
 - iii. Communication Skills (Verbal and non verbal)
 - iv. Positive Values
 - v. Learning Capability
4. 7 Ministry of Higher Learning KI (*Kemahiran Insaniah*) Soft Skills Elements
 - i. Communication Skills
 - ii. Critical Thinking Skills and Problem Solving Skills
 - iii. Teamworking Skills
 - iv. Lifelong Learning and Information Management
 - v. Entrepreneurial skills
 - vi. Ethics and professional values
 - vii. Leadership Skills

3. RAKSI Approach and Implementation

RAKSI module is carried out weekly for 11 weeks on every Wednesday from 9-11pm. It is compulsory for all 1st year students to go through this program dan RAKSI is a one credit subject which has been verified and approved by UMP Senate. A credit given to RAKSI program has been well accepted by all faculties due to the fact that it is carried out for the benefits of the students. Every topic has been categorized according to JERI (*Jasmani, Emosi, Rohani serta Intelek*) Physical, Emotion, Spiritual and Intellect with the aim to design a comprehensive and complete module. Module developers have organized a variety of activities in order to create a happy and interactive atmosphere inside the RAKSI class. Teamworking spirit, group counseling session, discussion in small groups, students' centered learning, IQ (Intellectual Quotient), EQ (Emotional Quotient) and SQ (Spiritual Quotient) questions with all sorts of jokes fill in every single minute of the students' time during RAKSI program. Students' involvement in the aspect of psychomotor combined with emotional and intellectual aspects have opened up the opportunities for students to be active throughout the 2 hours. Every facilitator will be given a hard copy module together with soft copy materials which consist of songs, poems, presentation slides and attractive pictures which can grab the students' attention. Conducive and comfortable classroom also play an important role to ensure the success of this module implementation. Every facilitator is given 15-20 students as a strategy to help students develop their communication skills during discussion and knowledge sharing session. Each group will be divided according to gender whereby female facilitators will be in charge of female students and male facilitators will take care of the male students. Each group combines all 7 faculties in UMP.

Since the group is a combination of all different faculties, students must try to get to know each other so that they are able to find compatibility among each other. The success of the module very much depends on the fluency of the module in the classroom. Soft Skills element is implemented as early as the first module where students go through ice breaking session by getting involved in a teamworking activity. They get the chance to introduce themselves, share their family background and also their personal interests. There are 3 activities which are conducted during the first 2 hours. Since it is vital to project a great first impression, these 3 activities involve psychomotor, cognitive and affective domain. Next, in the second module, students are exposed to activities which allow them to identify their own self potential. One of the activities is to analyze oneself during SWOT (strengths, weaknesses, opportunities and threats). Once they are able to identify their own potential, facilitators are there to expose them on the living culture in university by reminding them on the importance of Soft Skills and how their attitude will help them to become a better person, morally and spiritually.

Second module helps students to foresee the crucial reasons why Soft Skills is important in becoming a better person when they graduate later on. Third module has two activities which aim to create an awareness on how important it is to have time management skills and to plan on how to achieve their dreams until they become graduates and enter the workforce. This is to help students develop their Critical Thinking Skills and to be creative in solving problems while they are studying in UMP. Leadership skills, teamworking skills and communication skills are strongly embedded in module four where activity 1 and 2 demand them to use their psychomotor skills whereas activity 3 allows them to read and discuss. Students are given a problem and by using the most effective method in Problem Solving Skills, students choose a leader and they discuss on how to solve this problem as teamworking task. This situation is expected to grow their proactive attitude and creative thinking skills in

solving an obstacle or task given. These activities build strong teamworking spirit, project leadership skills among the students and high level of cooperation during the conflict of solving the problem. Module five to eleven have been tagged to develop all Soft Skills elements in their own way through personalized activities which combine UMP Core values and also together with MOHE Soft Skills elements. These modules are built in such a way where module developers have created matrix in order to identify all Soft Skills elements and Core Values will be embedded in all activities. Students are not contented only in UMP whereby they have the opportunity to carry out society obligation by helping the villages nearby in 'Gotong Royong Perdana' and Motivational Programs at Primary schools around Kuantan. In this module also, the developers have created three evaluation forms to identify and detect potential leaders and potential students who need extra attention for their Soft Skills understanding and development. Facilitators are to evaluate students according to their attendance, participation and contribution during the implementation of the activities throughout all 11 modules.

4. Data Collection and Results

A research has been carried out on 200 students from 7 faculties which consists of 1st semester students from 2008/2009 session who underwent RAKSI program at UMP. These students went through 1st module till the 7th module. 100 are females while the rest are male students. This is the 1st phase of the implementation for RAKSI program. 2 sets of questions have been developed in order to get students' feedback on the impact of RAKSI program to them especially on developing Soft Skills elements such as leadership skills, communication skills and teamworking skills. One set of feedback form was given to students before the RAKSI program began. The 2nd set of questions was distributed after the implementation of 7th module to the same students.

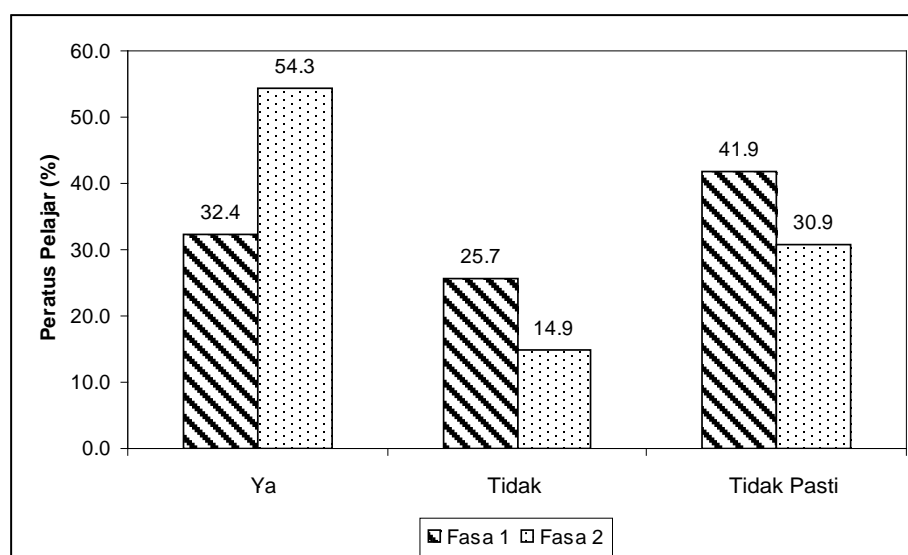
Briefly, the feedback form could be categorized into 2 phase:

Phase 1: Before the implementation of 1st module

Phase 2: After the implementation of 7th module

50% from both sets have the same questions. They aim to identify the effectiveness of RAKSI modules on Soft Skills elements before and after their implementation inside classroom. Questions are designed in the feedback form where 3 options are given to the students: “Yes” (*Ya*), “No” (*Tidak*) and “Not Sure” (*Tidak Pasti*).

4.1 Soft Skills (*Kemahiran Insaniah*)

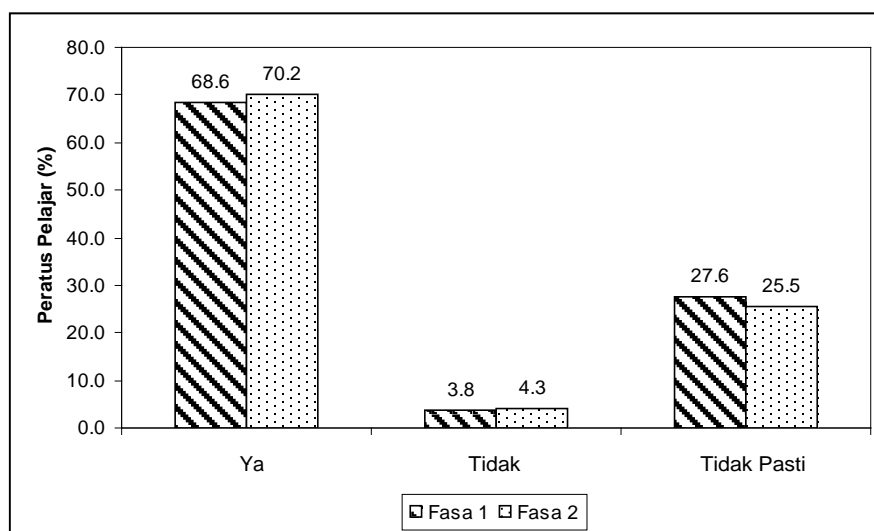


Rajah 1. Pemahaman kemahiran insaniah.

Figure 1. Soft Skills Understanding

Figure 1 shows the students' percentage who understand what Soft Skills is. It shows that the percentage has increased from 32.4% to 54.3%. 14.9% from the students still do not understand what Soft Skills is and 30.9% students are still unsure what Soft Skills is.

4.2 RAKSI Module (*Modul RAKSI*)



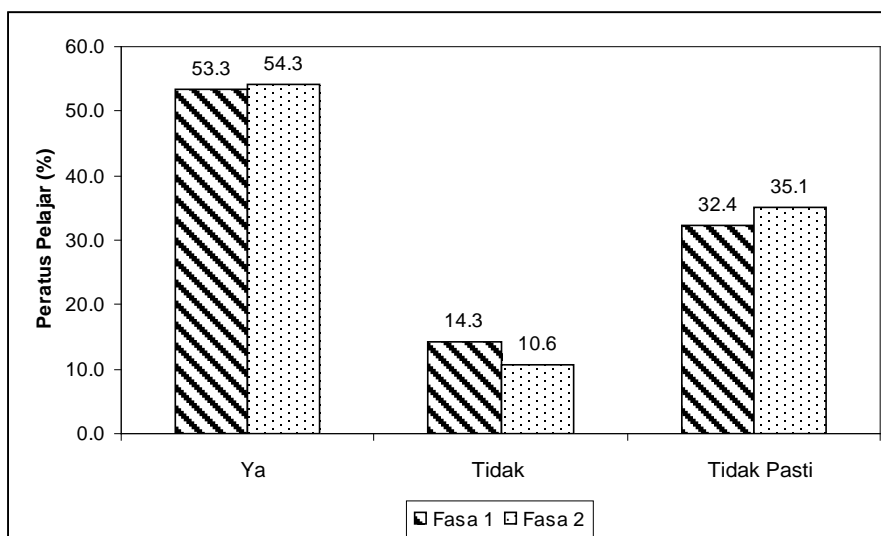
Rajah 2. Keberkesanan modul RAKSI

Graph 2. Effectiveness of RAKSI Module

Figure 2 shows the percentage on the students' confidence of the effectiveness of RAKSI module in developing Soft Skills. Their confidence has increased from 68.6% to 70.2%. The percentage of students who do not feel confident of the module is very small which is 4.3% whereas some students are still not sure of the module which is 25.5%.

4.3 Leadership Skills (*Kemahiran Kepimpinan*)

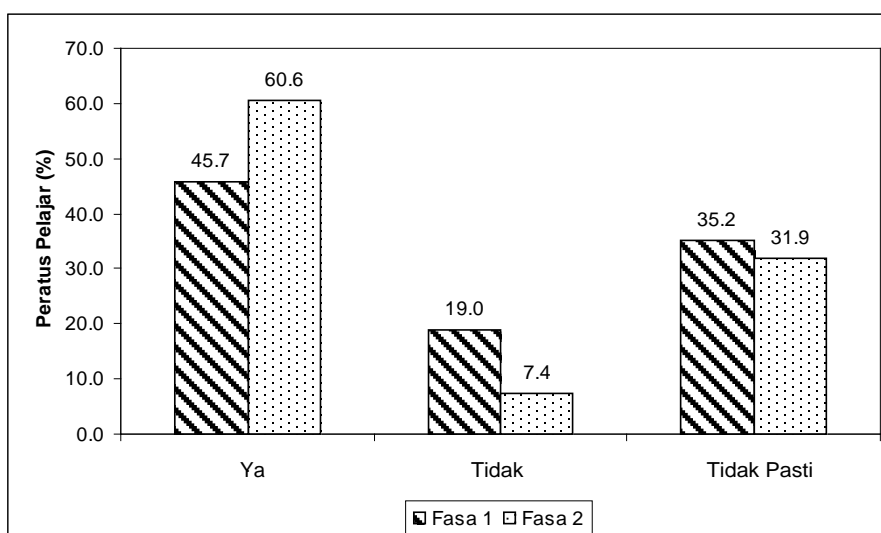
From 200 respondents, 97.1% students agree that leadership skills is very important in a student's life. From that percentage, only 53.5% students believe they can be leaders. However, it increases to 54.3% after they went through all 7 modules. This proves students believe RAKSI has the elements to upgrade their leadership skills. Figure 3 shows students feel confident to give instructions as a leader.



Rajah 3. Keyakinan memberi arahan.

Figure 3. Confidence in Giving Instructions

4.4 Communication Skills (*Kemahiran Komunikasi*)



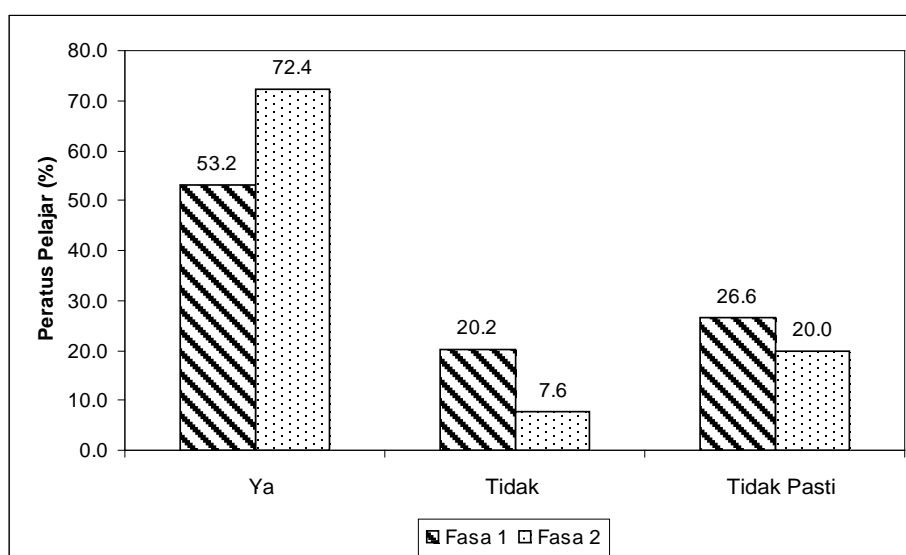
Rajah 4. Keyakinan bercakap di hadapan umum.

Figure 4. Confidence in Communication Skills (Public Speaking)

Figure 4 shows the students' percentage in having confidence whenever they speak in front of others. From Figure 4, there is an apparent percentage between Phase 1 and Phase 2. The

percentage of students who have the confidence to speak in front of public has increased from 45.7% to 60.6%. The percentage of those who still lack of confidence to speak in front of others is only 7.4% after the 7th module. The escalation of percentage in students' confidence shows that RAKSI has the communication skills which have been embedded in most activities and this has helped students to be able to speak better in front of others.

4.5 Teamworking skills (*Kemahiran kerja berpasukan*)



Rajah 5. Lebih berjaya menyelesaikan masalah dalam kumpulan.

Figure 5. Successful in problem solving in teamwork

78.1% from the students feel they are able to give opinion in their team during the problem solving activities. This shows they like to be in groups during the activities and they could discuss and exchange opinion. From that percentage, Figure 5 shows that 72.4% from the students feel they would be successful in problem solving if they do it a group. This percentage has increased from 53.2%.

After the 7th module which is Phase 2, the research found out that 62.8% from the students feel that RAKSI has achieved the objectives while 3.2% from the students disagree

with that opinion. 34% of them are unsure whether RAKSI has achieved its objectives. In addition, 78.7% feel that RAKSI has given them great and useful input compare to 17% who disagree with that opinion. 75.5% of the students feel that RAKSI should be made compulsory for all students especially new intake for every session at UMP. However, 10.6% disagree with that opinion and 13.8% are unsure. Regarding to the question on how RAKSI has managed to change their life as university student in order to graduate successfully from UMP, 59.6% give positive feedback, 5.4% disagree and 34% are unsure of the question. This research also asks the students on their opinion on the effectiveness of RAKSI being conducted by facilitators which are among UMP associates. Research shows that 93.6% are very satisfied with the involvement from the staff as facilitators for RAKSI program and only 1.1% disagree and 5.3% are unsure of the statement.

5. Conclusion

The results from the research shows that RAKSI at UMP has successfully developed Leadership skills, communication skills and teamworking skills among students. In overall, RAKSI will not be announced as the best program compared to other better programs in other universities. Nevertheless, the implementation of RAKSI has shown positive impact among new students at UMP. This approach has proven that from as early as day 1 and semester 1, students will be given the exposure on Soft Skills elements not just theoretically but through practical and hands on experience. This early exposure has emphasized on the importance of positive values in assisting students throughout their campus life and also a brief idea on what working life is all about. It is hoped that the comprehension of positive values will be practised even when they become engineers and join the society later on. The leaders of tomorrow are the hope of today. Malaysia has high expectation on the students to become a world class asset and the University must see their role in helping students by creating a

condusive environment which emphasizes on Soft Skills implementation not just from the understanding but also from practicality through great impact programs like RAKSI.

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