

# The students practices of core competencies at university: a comparative study between National University of Malaysia (UKM) and National University of Indonesia (UI)

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This study aims to compare students' practices of core competencies namely *communication skill, IT skill, numeracy, learning how to learn (LHTL), problem solving, working with others (WVO), and subject content competencies* between Faculty of Economics and Business Management of National University of Malaysia (FEP UKM) and Faculty of economics of National University of Indonesia (FE UI). Three hundred and thirty-four (334) of students' self report was collected from FEP UKM and 355 students' self reports were collected from FE UI. Descriptive findings show that students of FE UI obtained higher mean score of core competencies practices compare with students of FEP UKM. Students of FE UI perceived the practices of communication; IT and WVO competencies were at high level, while numeracy, LHTL, problem solving and specific subject content were at medium level. Otherwise students of FEP UKM perceived the practices of WVO was at high level and perceived the practices of communication, IT, numeracy, learning how to learn, problem solving and specific subject content at medium level. Comparison between FEP UKM and FE UI according to department decided that students of Business Management of FEP UKM UI performed their LHTL, problem solving, specific subject content, and overall core competencies were better than business management of FE UI. There is no a significant difference of core competencies between students of accounting of FEP UKM and accounting of FE UI. However, students of economics of FE UI performed the seventh competencies stronger than students of economics FEP UKM. Multiple regressions indicated that specific subject content ( $r^2=.124$ . and  $\beta=.312$ ), LHTL ( $r^2=.022$ . and  $\beta=.241$ ) and numeracy ( $r^2=.013$ . and  $\beta=.154$ ) associated with students CGPA at FE UI, however there was no significant correlation between students' core competencies and students' CGPA at the FEP UKM. Last result of differences analysis concluded that FE UI perceived the importance of IT, LHTL, WVO and overall competencies were higher than students of FEP UKM. This study point out that that there are similarities and differences of students' practices of core competencies between FEP UKM and FE UI. Finally, this study suggests that both universities should embed core competencies into curriculum design, teaching and learning practices and evaluation system.

**Key words:** Core competencies, Generic skills, practices

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## **Introduction**

Some studies such as Pumphrey & Slater (2002); Curry, et. al (2003); Borthwick and Wissler (2003); ACC (2004); Crebert, et. al (2004); Bath, et. al (2004); Business Council of Australia (BCA) report (2006) and Jones (2009) revealed that employers were not satisfied with the employability skills (core competencies) possessed by the graduates, and undergraduate students reported that they were not enough provided with the core competencies during study at the university. Most studies suggest that the development of generic skills is best facilitated by giving students practice and not by simply talking about or demonstrating what to do. The teaching approach is no longer monotonies on lecture, and slide presentation only where a lecturer standing in front of class exchanges slide by slide. The teaching and learning at university level now, is students centered where the students build their core competencies by various activities in the classroom.

The raising issues had become a wide discussion in Malaysia and Indonesia, and had convinced HE in these country to provide undergraduates students with core competencies during their study at university. The education process should emphasize that students to enhance their core competencies, i.e. communication skills, IT skills, numeracy, problem solving skills, learning how to learn, working with others and specific subject content competencies. The skills should be shifted into methodology of teaching and learning, in order to produce graduates with immense self-learning capacity (Basic Framework for Higher Education Development KPPTJP, 2003; MQF, 2005, UNESCO, 2006).

Though extensive researches have being done in many countries, however there is a lack of comparative study across border of countries conducted, hence, this study had conducted a comparative study of students' practices of core competencies between National University of Malaysia (UKM) and National University of Indonesia (UI) relates to the development of core competencies and practices in the classroom. It is expected this study can share positives values that could be used to improve the quality of graduates of both universities (UKM and UI).

## **Conceptual Framework**

As mentioned and explained in the previous parts, this research had investigated the students practices of the seven competencies based on student perception. The conceptual framework of the study is briefly illustrated in the chart below;

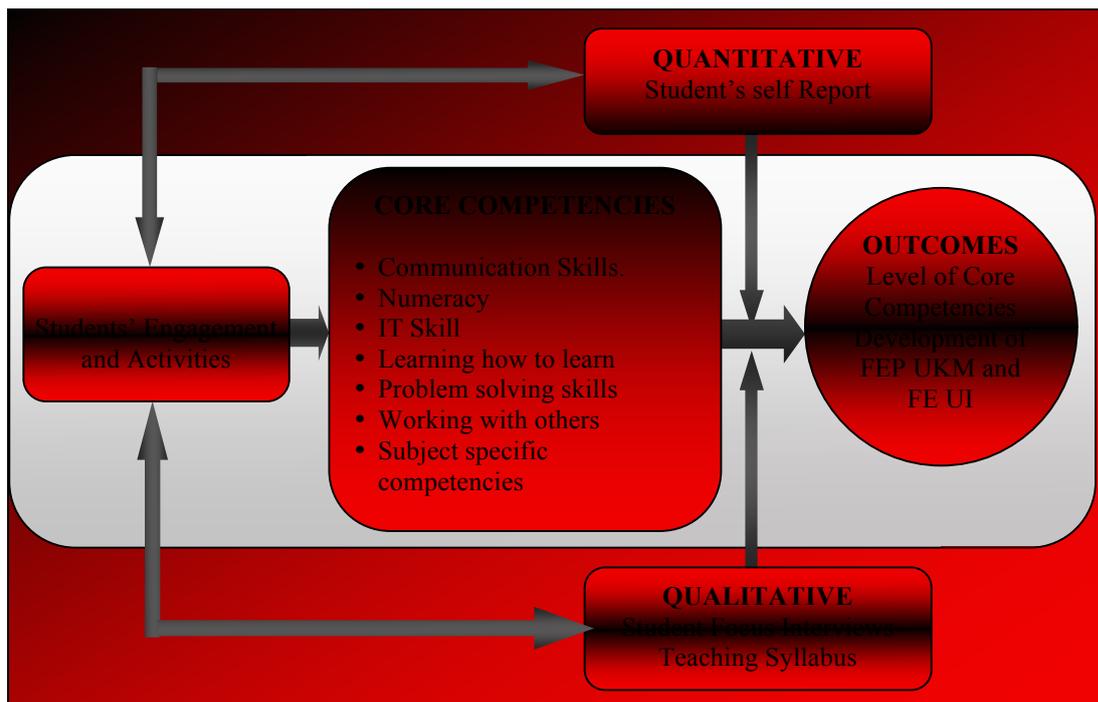


Figure 1: Conceptual Framework of the study (Adapted From Zalizan Mohammad Jelas, et. al. 2006; Bennet, et. al, 2000; LTLN, 2002; QCA, 2002 and Washer, 2007).

The conceptual framework illustrates how students' engagement and activities were generated in the classroom in relation to the practices of core competencies; communication skills, numeracy, IT Skill, learning how to learn, problem solving skills, working with others and subject specific content. Students' engagement and activities was evaluated by using the students' self report of core competencies and students' focus group interviews and teaching syllabus. At last part of the conceptual framework shows that the study comes out with students' level of core competencies practices of both universities.

### Research objectives

The purpose of this study is to compare the practices of core competencies of undergraduate students between Economics faculty of National University of Malaysia (FEP UKM) and national university of Indonesia (FE UI). Whereas main focuses of the study are (1) to investigate and compare the level of core competencies practices between FEP UKM and FE UI, (2) to investigate the importance level of core competencies at universities, as reported by students of FEP UKM and FE UI. (3) to investigate the differences and the similarities of core competencies practice of undergraduate students between FEP UKM and FE UI, (4) to investigate the differences and the similarities of core competencies practices of undergraduate students across department at FEP UKM and FE UI, (5) to investigate the correlation and relationship between core competencies and students' academic achievement at FEP UKM and FE UI and (6) to investigate the differences and the similarities of the importance of core competencies between FEP UKM and FE UI.

### Research method

The method used to generate this study is mix mode method between quantitative and qualitative. However, the quantitative was the main method of this study and qualitative as

secondary source of data collection. Students' self report (questionnaire) was used to collect quantitative data, while focus group discussion and syllabus design were used to gather qualitative data. The features of quantitative and data collection techniques in this study were a set of questionnaire and qualitative data collection techniques was a protocol of focused Group discussion. Both quantitative and qualitative instruments were adapted and adopted from core competencies model set by Zalizan Mohd. Jelas, et al, (2006).

The targeted population of this study was all students of FEP UKM and FE UI. Total students of FEP UKM in academic year 2009/10 were 1820, while students at faculty economics of UI were 3043. This study used purposes random sampling techniques and defined the sample size referring to Krejcie and Morgan (1970). There were 334 of Students' self report was collected from FEP UKM and 355 students' self reports of core competencies were collected from FE UI. First secondary data resources are focus group discussion. Focus group discussion was conducted with 7 students from FE UI and 7 students from FEP UKM.

Another secondary data is syllabus design. Seven syllabuses were collected from FE UI and 7 syllabuses were collected from FEP UKM. The syllabus designs were used to investigate how students' core competencies practices will be implemented in teaching and learning process, and the data would be triangulated with primer data and other secondary data resources (focused group discussion).

### **Reliability and Validity of Instruments**

The reliability analysis shows that all constructs of core competencies of the study at FEP UKM and FE UI obtained high Cronbach alpha coefficient  $> 0.7$  and corrected item correlation  $> .300$ . The reliability shows that there is a consistency of instruments between the studies conducted by Zalizan Mohd. Jelas et. al (2006) and this study. Both studies yielded high Cronbach Alpha ( $> .70$ ) and Corrected Item-Total Correlation ( $> .30$ ).

Factor analysis was also conducted to confirm that the items in each construct yielded strong factor loading upon the construct itself. The result shows that communication competencies yielded factor loading in the range .628 to .716, information technology in the range .624 to .731, numeracy in the range .612 to .724, learning how to learn in the range .522 to .719, problem solving between .482 to .707, working with others between .596 to .657 and specific subject content in the range .658 to .773. The findings confirmed that the items in every constructs explain and measure what supposed to do.

### **Research findings**

In this section, the findings of the students of core competencies practices of FEP UKM and FE UI would be reported according to research objectives.

### **Level of students core competencies practices between FEP UKM and FE UI**

The findings show that FE UI had higher performance in developing core competencies rather than FEP UKM in classroom practiced. Undergraduate students of FE UI obtained higher mean score of core competencies (mean 3.66) compared with undergraduate students of FEP UKM (mean 3.60). Looking at the result of core competencies in detail found that undergraduate student of FE UI yielded mean score of communication competencies, IT, Numeracy, learning how to learn, problem solving, working with others higher than students of FEP UKM (see Table 1).

Table 1: Comparison of Mean, standard deviation and level of core competencies between FEP UKM and FE UI

| Core Competencies         | UKM  |      |        | UI   |      |        |
|---------------------------|------|------|--------|------|------|--------|
|                           | Mean | S.D  | Level  | Mean | S.D  | Level  |
| Communication             | 3.48 | .526 | Medium | 3.73 | .557 | High   |
| Information Technology    | 3.59 | .747 | Medium | 3.82 | .879 | High   |
| Numeracy                  | 3.50 | .548 | Medium | 3.50 | .597 | Medium |
| Learning how to learn     | 3.61 | .513 | Medium | 3.64 | .574 | Medium |
| Problem solving           | 3.62 | .558 | Medium | 3.66 | .573 | Medium |
| Working with Others       | 3.69 | .505 | High   | 3.82 | .565 | High   |
| Specific Subject content  | 3.58 | .552 | Medium | 3.59 | .594 | Medium |
| Overall Core Competencies | 3.60 | .440 | Medium | 3.66 | .453 | Medium |

### The importance level of core competencies according to students of FEP UKM and FE UI.

Looking at comparison of mean scores of competencies between shows that students of FEP UKM scored importance of learning how to learn as the highest mean score of the seven followed by working with others competencies, importance of problem solving, importance of communication, importance of specific subject content, importance of IT and importance of numeracy. Whereas students of FE UI also perceived working with others competencies and importance learning how to learn at highest mean score followed by the importance of IT, problem solving, specific subject content, communication and numeracy competencies. In addition, students of FE UI yielded mean score of importance of communication competencies, IT, Numeracy, learning how to learn, problem solving, and working with others higher than students of FEP UKM.

Table 2: Comparison of Mean, standard deviation and the important level of core competencies between FEP UKM and FE UI

| Important level of Core Competencies | UKM  |      |       | UI   |      |       |
|--------------------------------------|------|------|-------|------|------|-------|
|                                      | Mean | S.D  | Level | Mean | S.D  | Level |
| Communication                        | 3.86 | .518 | High  | 3.88 | .504 | High  |
| Information Technology               | 3.86 | .524 | High  | 3.97 | .532 | High  |
| Numeracy                             | 3.76 | .489 | High  | 3.83 | .563 | High  |
| Learning how to learn                | 3.95 | .540 | High  | 4.06 | .526 | High  |
| Problem solving                      | 3.88 | .485 | High  | 3.93 | .554 | High  |
| Working with Others                  | 3.93 | .551 | High  | 4.06 | .536 | High  |
| Specific Subject content             | 3.86 | .575 | High  | 3.92 | .559 | High  |
| Overall Core Competencies            | 3.88 | .427 | High  | 3.95 | .425 | High  |

### The differences and the similarities of core competencies practices of undergraduate students between FEP UKM and FE UI.

MANOVA was conducted to analyze the differences of mean score of core competencies practices between FEP UKM and FE UI. It was found that there was a significant difference of practices of communication ( $F=36.599$  and  $Sig.=.000>.05$ ), IT ( $F=9.164$  and

Sig=.003>.05), working with others (F=7.459 and Sig=.000>.05) and overall core competencies (F=.4.836 and Sig=.0280>.05) between FEP UKM and FE UI. Students of FE UI perceived their core competencies were higher than students of FEP UKM. However, there was no significant difference in the practices of numeracy, learning how to learn, problem solving and specific subject content competencies between students of FEP UKM and FE UI.

### **The differences and the similarities of core competencies practices of undergraduate students across department at FEP UKM and FE UI.**

The differences analysis by using MANOVA revealed that students of business management FEP UKM performed learning how to learn (F =5.288 and sig.= .022<.05), problem solving (F =4.358 and sig.= .038<.05), specific subject content (F =6.159 and sig.= .014<.05) and overall core competencies (F = .118 and sig.= .011<.05) are stronger than students of business management of FE UI. However, there is no a significant differences of core competencies between business management UKM and business management of UI in term of communication (F = 1.064 and sig.= .303>.05), IT (F = .163 and sig.= .687>.05), numeracy (F =.955 and sig.= .330>.05), working with others (F =.463 and sig.= .497>.05).

In comparison of core competencies between students of accounting of FEP UKM and accounting of FE UI found that there is no a significant difference between both group of the student on communication (F = 1.618 and sig.= .205>.05), IT (F = .605 and sig.= .437>.05), numeracy (F =.726 and sig.= .381>.05), learning how to learn (F =2.764 and sig.= .098>.05), problem solving (F =2.228 and sig.= .137>.05), working with others (F =.027 and sig.= .869>.05), specific subject content (F =2.217 and sig.= .138>.05) and overall core competencies (F = 2.289 and sig.= .132>.05). However analysis of differences revealed that students of economics FE UI were showing higher performance of communication (F = 72.016 and sig.= .000<.05), IT (F = 40.940 and sig.= .000<.05), numeracy (F = 21.263 and sig.= .000<.05), learning how to learn (F = 21.589 and sig.= .000<.05), problem solving (F = 21.589 and sig.= .000<.05), working with others (F = 33.050 and sig.= .000<.05), specific subject content competencies (F=16.356 and sig.000<.05) and overall core competencies (F = 44.023 and sig.= .000<.05) than students of economics of FEP UKM

### **The correlation and relationship between students' academic achievement and the core competencies practices at FEP UKM and FE UI**

Pearson correlation was used to analyze the relationship strength between core competencies and students' CGPA at FEP UKM and FE UI. The findings show that there was no a significant correlation between communication (r=-.028, sig.=.644>.05), informational technology (r=-.005, sig.=.933>.05), numeracy (r=-.042, sig.=.486>.05), learning how to learn (r=.022, sig.=.715>.05), problem solving (r=.051, sig.=.395>.05), working with others (r=-.068, sig.= .260>.05), spec. subject content (r=-.048, sig.=.425>.05) and overall core competencies (r=-.017, sig.=.782>.05) with students' CGPA at FEP UKM. Meanwhile, there was a significance correlation between communication (r=.273, sig.=.000<.05), informational technology (r=.120, sig.= .033<.05), numeracy (r=.153, sig.= .006<.05), learning how to learn (r=.287, sig.= .000<.05), problem solving (r=.182, sig.= .001<.05), working with others (r=.260, sig.= .000<.05), specific subject content (r=.332, sig.= .000<.05) and overall core competencies (r=.286, sig.= .000<.05) with students' CGPA at FE UI.

Multiple Regression with Stepwise Method was conducted for sample of FE UI to investigate seven independent variables; communication, informational technology, numeracy, learning how to learn, problem solving, working with others, and specific subject content across

dependent variable students' CGPA. The result of Stepwise Multiple Regressions analysis shows that there were 3 out of 7 independent variables significantly associated with students CGPA. The three variables were specific subject content, learning how to learning and numeracy. Specific subject content was the main predictor toward students' CGPA, while learning how to learn was a second predictor and numeracy as the third predictor. The strength of the three predictors was  $R^2=.159$ , thus constitutes the combination of contribution of three predictors to students' CGPA. This means that the three predictors contributed 16% to students CGPA at significant level  $p=.00<0.01$ . The specific subject content as the main predictor yielded  $\beta= .312$ ,  $t= 3.889$  at significant level  $p=0.00<0.01$  and contributes 12.4% to students CGPA. This means that if the score of specific subject content increases 1 unit therefore the students CGPA will increase .312 units. The second predictor is learning how to learn yielded  $\beta=.241$ ,  $t=3.512$  at significant level  $p=.00<0.01$  and contributed 2.2% to students CGPA. This means that if the numeracy increases 1 unit, therefore the students CGPA will increase .154 units. The third predictor was numeracy competencies yielded  $\beta=.154$ ,  $t=2.21$  at significant level  $p=.028<0.05$  and contributed 1.3% to students CGPA or if the numeracy increases 1 unit, therefore the students CGPA will increase .154 units.

### **The differences and the similarities of the importance of core competencies between FEP UKM and FE UI.**

Analysis results of MANOVA shows that students of FE UI performed their IT ( $F= 7.592$  and  $\text{sig.}=.006<.05$ ), learning how to learn ( $F =8.660$  and  $\text{sig.}=.003<.05$ ), Working with Others ( $F = 8.451$  and  $\text{sig.}=.004<.05$ ) and overall core competencies ( $F = 6.424$  and  $\text{sig.}=.02<.05$ ) are higher than students of FEP UKM. However there was no differences importance level of core competencies in term of communication, numeracy, problem solving and specific subject competencies.

### **Findings of Secondary Data Analysis**

The result of the first secondary data resources, focused group discussion portrayed that students of UI perceived working with others as the most priority developed by the lecturers followed by specific subject content, IT, LHTL, communication, numeracy and problem solving core competencies. Different result with FE UKM shows that students of UKM report specific subject content as the most developed by the lecturer, the second most priority was working with others, communication and IT, and Learning how to learn. However numeracy and problem solving competencies were not mentioned during the focused group discussions.

The secondary resources of syllabus design revealed that both faculty FEP UKM and FE UI involved components of core competencies in learning process. Another similar trend between the syllabus comparisons was both faculties emphasized on specific subject content for all subjects. There was also a slightly difference, where FE UI include communication competencies in all subject and LHTL in most of the subject while syllabuses from FE UKM employed communication competencies in five syllabuses and LHTL in three syllabuses. FE UI included WWO in five subjects while syllabus from FE UKM only employed in two syllabuses. In conclusion, there was an effort of both faculties to provide students with core competencies. In contrary, the type of assessment used by most subjects was dominated by 70 to 90% examination.

### **Discussion**

The findings revealed students of FE UI had more practices of core competencies as compared with students of FEP UKM, however there is a need of both faculties to encourage their communication, IT, numeracy, LHTL, problem solving, working with others, specific subject content competencies and overall competencies. And it is expected that the graduate will be able to read and analyze working situation with a critical mind and use their core competencies to succeed their career and their employer as well as contribute their country. Particularly, due to the lacking of communication practice by undergraduate students in the process of teaching and learning, FEP UKM ought to encourage lecturer to convey learning activities which aims to improve students' communication competencies at least at the mean 3.67 to 4, which belongs to the bottom part of the 'high level' of core competencies according Bennett's (2000) interpretation of mean scores.

Despite the diversity and similarity of the findings between two universities, others commonalities also can be identified across the broad field of comparative study on across universities and country. Among these commonalities are core competencies practices and development in university which can be fostered by a comparative research in different country but at the same continent, and more and less has similar challenge and changes. In addition, though the differences level of students' core competencies practices between universities, however there is a trend at both universities impeding core competencies into process of teaching and learning.

The students of both university ranked core competencies at extremely importance to acquire, in contrast they ranked their practices of core competencies practices at university at average level. In this matter, National University of Malaysia and National University of Indonesia should make sure that undergraduate students are prepared by core competencies during their study at university. It is essential that core competencies be assessed as an integral part of the subject. By this manner, the students and employer expectation can be achieved.

The common issues that students' core competencies level should be related to their CGPA, unfortunately these results demonstrated that core competencies had no any relationship with students' CPGA of FE UKM. The content analysis upon syllabus also revealed that core competencies were not embedded into any kind of grading systems at FE UKM. However, there was a small positive contribution of core competencies to students' CGPA of FE UI. This means that there is an indication of FE UI to include core competencies into grading system. It was supported by the result of courses content analysis that demonstrates skills practices as a part of the grading system. However the proportion of grade for skills practices was very small.

An important point that must be highlighted is, this finding raises an important issue for the universities or other institutions. It would therefore be expected that both universities UKM and UI provide students with core competencies during attending courses at university. The evidence of this findings revealed that limited generics skills practices of the students is therefore of concern. Specifically, my study question the assumption that core competencies is an inevitable outcome of time spent studying at university, and as discussed, this appeals to an issue that has received considerable attention both within and beyond HE institutions.

## **Conclusion**

There is a different and similar trend of students' core competencies practices between national university of Malaysia and National University of Indonesia; however the students'

practices of core competencies at both universities were not strongly emphasized. Fascinatingly, both groups of students realize that core competencies practices during their study at university were very importance. Thought there is an effort of both universities integrating core competencies into curriculum, teaching syllabus and classroom practices, unfortunately core competencies were not included in evaluation system in most subjects. The authorities of universities should consider the manner in which students' core competencies practices can be assessed and should take into account of core competencies level become a requirement of completing degree at university.

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