The Practices of Students' Generic Skills Among Economics Students at National University of Indonesia

Hadiyanto[1] & Suratno[2]

[1] English Education Department, University of Jambi (UNJA), Jambi, Indonesia

[2] Economics Education Department, University of Jambi (UNJA), Jambi, Indonesia

Correspondence: Hadiyanto, English Education Department, University of Jambi (UNJA), Jambi, Indonesia. E-mail: hadi_tesl05@yahoo.com

Abstract

This study aimed to examine students' generic skills practices (communication, IT, numeracy, learning how to learn, problem solving, working with others, and subject-specific competencies) at National University of Indonesia (UI). Survey design with quantitative method was applied in this study. Questionnaires were distributed to 355 students at economics faculty of UI. The findings show that the students rated their overall generic skills practices at the bottom of high mean score. Among seven skills, four skills were applied by the students at high level; they were communication, IT, Numeracy and team work skills, but still its mean score were at bottom level of high level. Moreover, three of seven generics skills were performed at medium level; they are numeracy, learning how to learn and problem solving and subject-specific competencies. Finally, this study suggests that the faculty of economics and the university should formulate and implement generic skills development into action in order to attain intended outcomes of higher education namely employability, lifelong learning and good citizenship.

Keywords: generic skills, development, practice, university, higher education

1. Introduction

A number of studies such as Pumphrey and Slater (2002), Curry et al. (2003), Borthwick and Wissler (2003), Crebert et al. (2004), Bath et al. (2004), the Business Council of Australia (BCA, 2006), and Jones (2009) have revealed that employers are not satisfied with the employability (or "generic") skills possessed by undergraduate students, reporting that students are not sufficiently provided with generic skills during university education. Most studies suggest that the development of generic skills is best facilitated by giving students opportunities for practical application, rather than simply talking about or demonstrating what to do. Hadiyanto and Sani (2013) argue that teaching approach is no longer the lecture or the slide presentation, where the lecturer simply stands in front of the class, showing slide after slide and explaining theories. The teaching and learning process must be centred at the students them self.

Similar issues regarding higher education have arisen and been discussed widely in Malaysia and Indonesia. The study conducted by Jelas et al. (2006) showed that students' overall generic skills were at average level (2-11). Students also perceived that their communication, IT, numeracy, learning how to learn, problem solving, working with others, and discipline-based skills, as developed at university, were at an average level. The results of employers' interviews conducted in Malaysia further show that there is a consistent and shared belief that the graduates should have these seven core skills. Similarly, Ambigapathy and Aniswal (2005) report that comments from graduates and employers emphasized the importance of generic skills, particularly teamwork, in the curriculum. In Indonesia, Irma (2007) shows that employers ranked communication skills as the most important for the graduate employee, followed by integrity and honesty, working in a group, interpersonal skills, ethical values, good motivation, organizational skills, IT skills, and a high Cumulative Grade Point Average (CGPA).

These issues have inspired the higher education authorities of Malaysia and Indonesia to help undergraduate students to develop generic skills during their study at university. The education process should emphasize the importance of enhancing students' generic skills, that is, communication, IT, numeracy, problem solving, learning how to learn, working with others, and subject-specific competencies. These skills should be integrated

into the methodology of teaching and learning, in order to produce graduates with a high self-learning capacity, as the Basic Framework for Higher Education Development, the Malaysian Qualification Framework (2005), and UNESCO (2007) indicate.

Although extensive research has been carried out in many countries, few studies examine the situation across national borders, and therefore the present study has been conducted at both the National University of Malaysia (UKM) and the National University of Indonesia (UI). It is expected that this study will identify positive actions that can be used to improve the quality of graduates at both universities.

2. Objective and Conceptual Framework

The aim of this study was to investigate the practice of generic skills among undergraduate students in the Economics Faculty at the Economics Faculty of the National University of Indonesia. Obtaining the aim of the study, I formulated the conceptual framework as shown in Figure 1.
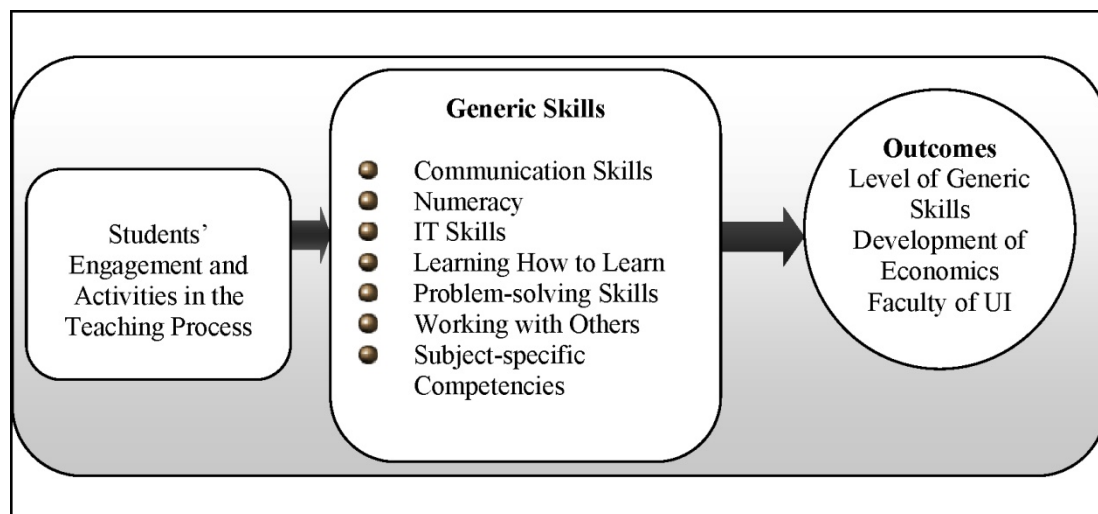

Figure 1. Conceptual framework of the study

The conceptual framework shown in Figure 1 illustrates how students' engagement and activities were generated in the classroom in relation to the development of generic skills. The model of generic skills discussed in this paper refers closely to that developed by Jelas and Azman (2005). Generic skills are defined the set of skills or abilities essential to fulfilling the three potential outcomes of higher education, namely, the needs and requirements of employers in the marketplace, lifelong learning, and good citizenship. In this study, the generic skill set was considered to consist of seven skills: communication, numeracy, IT, learning how to learn, problem solving, working with others, and subject-specific competencies (Jelas & Azman, 2005; Bennett et al., 2000; Cornford, 1999). The seven generic skills as displayed in the conceptual framework are briefly elaborated in the sections below.

2.1 Communication Skills

Communication skills are necessary to enable graduates to deliver their ideas as individuals and group members. As Morreale et al. (2000) indicate, these skills combine a diversity of elements in order to produce good decisions, solutions, and negotiations (1-3). Communication skills refer to one's ability to use active listening, writing skills, oral communication, presentation skills, and questioning and feedback skills to establish successful communication (Mayer Committee, 1992, as cited by the Scottish Qualification Authority, 2003; Bennett, 2000; Washer, 2007; Jones, 2009).

2.2 Numeracy

Numeracy is defined as the aggregate of skills, knowledge, beliefs, patterns of thinking, and related communicative and problem solving processes that individuals need to effectively interpret and handle real-world quantitative situations and problems (Gal, 1997; Jelas et al., 2006; Washer, 2007).

2.3 Information Technology

IT skills refers to the ability of "individuals to apply technology such as computers, software applications, databases, and other technologies to achieve a wide variety of academic, work-related, and personal goals" (Mayer Committee, 1992, as cited by the Scottish Qualification Authority, 2003; ACRL, 2004; Washer, 2007). Harrington and Elander (2003) refer to the use of technology in teaching and learning to provide manifold opportunities for teachers and learners to develop their lifelong learning.

2.4 Learning How to Learn

Learning how to learn is defined as acquiring the set of skills and knowledge required to learn efficiently and effectively in any learning situation (QCA, 2000). Learning demands processes, understandings, and skills that can be learned and taught. When one has gained mastery in learning how to learn, one can learn effectively and efficiently at any age. Thus, this competence is considered of potential importance to the concept of lifelong learning and the self-managed learner (Smith, 1982; Jelas et al., 2006; Washer, 2007).

2.5 Problem Solving Skills

Problem solving skills constitute the ability to tackle problems systematically, for the purpose of working towards solutions and learning from this process (Jelas et al., 2006; Washer, 2007). The ability to solve problems will have a great impact on the success of the students' "real life" endeavours (Cook & Slife, 1985). QCA (2000) explains the purpose of these skills as to enable students to tackle problems systematically in the workplace, working towards appropriate solutions and learning from this process.

2.6 Working with Others

Working with others is defined as the ability to meet one's own responsibilities and work cooperatively in a pair or a group for the purpose of achieving shared objectives (QCA, 2000; Jelas et al., 2006; Washer, 2007). Learning to become valuable members of a team is one of the most vital skills for employability (Mayer Committee, 1992; QCA, 2000). The ability to work as a team member will have a great impact on the student's ability to produce new ideas and deal with any situation in real-life work.

2.7 Subject-Specific Competencies

Subject-specific competencies are defined as the knowledge, capabilities, and dispositions required to organize and provide information at the appropriate level of the study relating to the subject content taught (Hadiyanto, 2013). This means that every graduate must have specific subject knowledge related to his/her selected discipline, and must understand both how to link this information to other disciplines and how it can be applied in a real-world setting.

2.8 Evaluation of Generic Skills

The practice and development of generic skills were evaluated using the self-reports provided by the students. These reports described the ways that students' engaged and carried out activities in the process of learning in order to acquire generic skills. The level of generic skills identified were compared and analysed. As the final part of the conceptual framework shows, the outcomes of the study include the development of students' generic skills at both universities.

3. Research Method

The target population of this study was all students in Faculty of Economics, national University of Indonesia (UI). Simple random sampling was used to define the study sample. The sample size was determined by using the Krejcie and Morgan's (1970) size sampling. Three hundred and fifty-five (355) respondents were randomly selected out of the total 2091 students. The data for this study were generated using a quantitative method. A questionnaire was conducted to elicit students' self-reports regarding their level of frequency in practicing generic skills. The students were asked to respond to each statement about their practice of generic skills using a 5-point Likert scale (never, rarely, sometimes, often, and very often). For example, to obtain the students' level of practicing communication skills for statement A1 (made a class presentation), they were asked to rate their level of practice as never, rarely, sometimes, often, or very often.

Software SPSS was run in data analysis and descriptive statistics was used to report the profile of respondents and students generic skills practices. The students' responds from 1-5 likert-scale were computed into mean scores. The mean score of the students' generic skills was interpreted in three levels, as shown in Table 1.

Table 1. Interpretations of mean scores

Mean Score	Interpretation
1.00 to 2.33	Low
2.34 to 3.66	Medium
3.67 to 5.00	High

As Table 1 shows, a mean score between 1.00 and 2.33 indicates a low level of generic skills, a mean score between 2.34 and 3.66 a medium level, and a mean score between 3.67 and 5.00 a high level of generic skills.

3.1 Reliability and Validity of Instruments

A reliability analysis demonstrated that all constructs of generic skills included in the study had a high Cronbach alpha coefficient (> 0.7) and corrected-item correlation (> .300). This analysis shows that there is a consistency of instruments between the study conducted by Jelas et al. (2006) and this study.

Factor analysis was also conducted to confirm that the items in each construct yielded strong factor loading upon the construct itself. The results show that communication competencies yielded factor loading in the range .628 to .716, IT skills 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 in the range .482 to .707, working with others in the range .596 to .657, and subject-specific competencies in the range .658 to .773. These findings confirm that the items in each construct explain and measure according to their intended purpose.

4. Research Findings

4.1 Overall Levels of Students' Generic Skills

According to the findings, the English students showed mean score of generic skills practices in overall (3.67 of 5.00) is at high level. A closer examination of the mean score given by the students rated team works as the highest, followed by IT skills, communication, problem solving and learning how to learn, subject specific competencies and numeracy skills. These findings imply that the generic skills in overall were well blended and practiced in learning and teaching process. However, two generic skills were medium at medium level, they are numeracy and subject specific competencies (see Figure 2).
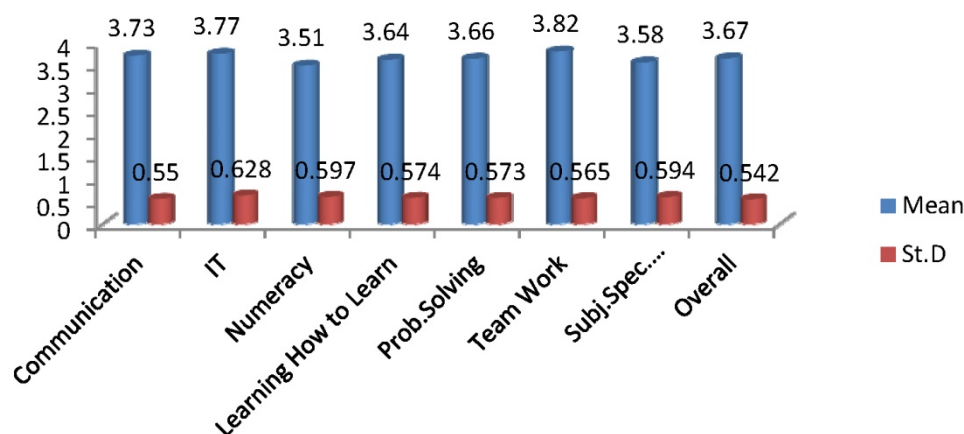

Figure 2. Overall mean and level of generic skills practices

As displayed in Table 2 the practices of communication skill in overall was at high level (mean score 3.36). Though the overall mean score was at high level, three of five indicators of communication skills were practiced at medium level (mean between 2.61-3.40), they were using different format (statement A2), using varied vocabulary and expressions (statement A3), and monitoring and reflecting (statement A5). Only two indicators were rated at high level, they were class presentation (statement A1) and Integrating ideas or information (statement A4). This finding signifies that the communication skills in some cases were not really applied in the process of teaching and learning.

Table 2. Level of communication skills practices

Communication Skills	Mean	S.D	Level
A1 Made a class presentation	4.02	.741	High
A2 Used different formats for presenting information including business letters, memos, forms and short reports in homework and assignments set by my lecturers.	3.51	.888	Medium
A3 Used varied vocabulary and expressions whilst participating in a discussion for instance in asking questions and giving suggestions.	3.58	.811	Medium
A4 Worked on a paper or project that required integrating ideas or information from various sources (i.e. books and journals).	4.01	.781	High
A5 Monitored and critically reflected on my use of communication competencies by obtaining feedback from my lecturers and peers and also noting choices that I have to improve the effectiveness of my communication competencies.	3.58	.858	Medium
Overall	3.73	.557	High

The mean score of IT skills practices as displayed in Table 3 was at the high of 3.77. Furthermore, five of four indicators yielded means score at high level (mean between 2.61-3.40), they are looking for information from IT sources (statement B1), presenting information using it skills (statement B3), creating new information and using software (statement B4), using software and its features (statement B5) and developing the structure of a presentation at high level (statement B6). The finding implies that under-graduate students were performing IT skills well in term of the indicators in their learning activities. Hence, the students revealed that they were not frequently practicing IT skills in term of entering and developing information (statement B2).

Table 3. Level of IT practices

IT Skills	Mean	S.D	Level
B1 Looked for and selected relevant information from IT sources such as files, CD ROMs, the Internet and non IT sources such as written notes and diagrams to discuss and complete an assignment	3.99	.891	High
B2 Entered and developed information in the form of text, image and numbers such as carrying out calculations using suitable software, moving and resizing images.	3.51	.901	Medium
B3 Presented information using IT competencies to suit different purposes	3.90	.825	High
B4 Created new information by comparing it from various sources to reach a conclusion	3.68	.878	High
B5 Used software features such as database queries, searching machine and spreadsheets to improve work efficiency	3.72	.953	High
B6 Developed the structure of presentation (using, paragraph styles, page number) and redefined presentation by combining text, images, video and numbers.	3.82	.893	High
Overall	3.77	.628	High

Table 4 shows that overall mean score of numeracy was at medium level (mean score 3.51). All indicators of numeracy skills yielded mean score at medium level (mean between 2.61-3.40) except indicator "reading and understanding tables, charts, graphs and numbers" (statement C1). This finding signifies that the students did not frequently practice the numeracy skills during their study at University. While current job market, employer are seeking for employee who are attributed with a numeracy skills, this skill is important to work for instance for managing time, making job priorities, reporting working progress, etc.

Table 4. Level of numeracy skills practices

Numeracy Skills	Mean	S.D	Level
C1 Read and understand tables, charts, graphs and numbers used in different ways like fractions, decimals, percentages, and large numbers in figures or words.	3.76	.855	High
C2 Read scales on measuring equipment like the watch, tape and thermometer using everyday units like minutes, grams and degrees	3.01	1.12	Medium
C3 Used effective ways to present findings by explaining my main points.	3.88	.811	High
C4 Constructed and labeled tables, charts and graphs to illustrate findings.	3.51	.939	Medium
C5 Assessed the effectiveness of my work and identifying factors that had an impact on the outcomes	3.52	.910	Medium
C6 Monitored and critically reflected on my use of numeracy including getting feedback, noting choices made and adapting strategies to overcome difficulties I face.	3.30	.912	Medium
C7 Identified the relevant information sources and outcomes I hope to achieve.	3.64	.780	Medium
Overall	**3.51**	**.597**	**Medium**

Table 4 displays the practices of learning how to learn skill in overall was at medium level (mean score 3.64). Looking at indicators of LHTL shows that four of nine were practiced at medium level (mean between 2.61-3.40). The fourth indicators are putting together knowledge (statement D6), reviewing what had learned and what had not (statement D7), consulting to improve performance of learning (statement D8) and adapting learning strategy (statement D9). Six others indicator were practiced by the students at high level they are making changes based on lecturer suggestions (statement D1), setting and planning (statement D2), managing time and prioritizing (statement D3), working and learning independently (statement D4) and identifying better ways of learning (statement D5). Although the students rated their practices at high level yet its mean score did not close to maximum value of 5.00. In overall conclusion of the findings indicates that the English students were not strongly prepared to be a lifelong learner.

Table 5. Level of learning how to learn practices

Learning how to learn	Mean	S.D	Level
D1 Made changes suggested by your lecturer to improve your performance in the quality and way you work.	3.84	.781	High
D2 Set realistic targets with tutor and plan how these would be met.	3.81	.870	High
D3 Managed your time effectively by prioritizing your action, dealing with any difficulties to meet your deadlines.	3.82	.823	High
D4 Worked independently at times and be responsible for organizing own learning.	3.88	.821	High
D5 Identified ways you learn best in order to meet a tutor's standards or expectations	3.85	.816	High
D6 Put together ideas or concepts from different courses when completing assignments or during class discussions	3.38	1.03	Medium
D7 Reviewed what you have learned and how you learned, including what has gone well and less well.	3.53	.847	Medium
D8 Consulted lecturers to improve your learning performance.	3.00	1.03	Medium
D9 Adapted your learning strategy (i.e. independent, collaborative and cooperative) as necessary to improve your performance.	3.66	.865	Medium
Overall	**3.64**	**.574**	**Medium**

The findings in Table 6 show that problem solving skills in overall was practiced at the medium (3.66). Further analysis in each indicators of problem solving skills revealed four out of seven indicator were practiced by students at medium level, they are identifying problems (statement E1), including diverse perspectives in class discussion (statement E4) and exploring and making comparison to solve an assignment problem (Statement E5).

There are only three indicators of problem solving reach high level of practices by the students, they were coming up with several ways to tackle a problem (statement E2), using different methods to analyze the problem by looking at the problem from different sources (statement E3) and solving problems by getting and making efficient use of resources (statement E6). In other ways to say, problem solving skills were not highly practiced by the students in their learning process.

Table 6. Level of Problem Solving Practices

Problem Solving	Mean	S.D	Level
E1 Identified a problem by describing its main features while doing assignments.	3.65	.865	Medium
E2 Came up with several ways to tackle a problem	3.68	.821	High
E3 Used different methods to analyze the problem by looking at the problem from different sources (materials, equipments, information, and support from others).	3.70	.835	High
E4 Included diverse perspectives (different races, religions, genders, political beliefs etc.) in class discussions or writing assignments	3.52	1.024	Medium
E5 Explore how to solve an assignment by making comparisons with similar problems and finding analogies from readings or own experience.	3.66	.811	Medium
E6 Solved problems by getting and making efficient use of resources provided by the university.	3.82	.904	High
E7 Presented your approach to problem solving, including evidence to support your conclusions to lecturers and peers	3.56	.862	Medium
Overall	**3.66**	**.573**	**Medium**

Teamwork skills are one of necessary skills in order that the prospective teachers be able anticipate work challenges and multi-task constraints, more over obtaining an optimal team work will come out with a high quality of working output. As displayed in Table 7 shows that the students rated their teamwork skills at high level (mean score 3.82). Five indicators of teamwork skills yielded mean score at high level, they are working with others on activities other than coursework (statement F1), working with other students on projects (statement F3), resolving conflicts occurred in group work (statement F5) and offering ideas to ensure best use is made of resources in order for the task to be completed on time and up to the standard required (statement F7). The point is teamwork skills

Table 7. Level of working with others practices

Working with Others	Mean	S.D	Level
F1 Worked with others on activities other than coursework (committees, student life activities, etc.)	4.15	.857	High
F2 Had serious conversations with students of a different race or ethnicity than your own.	3.49	1.003	Medium
F3 Worked with other students on projects or class assignments.	3.99	.775	High
F4 Resolved conflicts occurred in group work.	3.77	.824	High
F5 Gave and shared constructive feedback in improving group work.	3.91	.774	High
F6 Sought effective ways to keep yourself and others motivated.	3.65	.925	Medium
F7 Offered ideas to ensure best use is made of resources in order for the task to be completed on time and up to the standard required.	3.80	.774	High
Overall	**3.82**	**.565**	**High**

Irony findings occurred at the mean scores of subject competencies; it yielded mean score at medium level 3.58. It was supposed to give high to very high mean score, due to these competencies relate to their own subject discipline. Furthermore, looking at each indicator, the students perceived the practices of subject competencies for all statements at medium level. The findings implied that the students were more provided theoretical basis rather than competencies it's self. They were not prepared enough to acquire how to apply knowledge into real practice or real world. The findings are displayed in Table 8.

Table 8. Level of subject specific competencies practices

Subject specific competencies	Mean	S.D	Level
G1 Applied your subject-content knowledge in completing tasks given by lecturers.	3.87	.768	High
G2 Discussed ideas from your readings or classes with others outside of class.	3.50	.828	Medium
G3 Explained contents learned in lectures to other students and tutors.	3.33	.911	Medium
G4 Answered questions proposed by lecturer using knowledge based on subject content	3.66	.804	Medium
G5 Utilized your subject-content knowledge in practicum, industrial training and others practice.	3.52	.871	Medium
Overall	**3.58**	**.594**	**Medium**

5. Discussion

In general, the findings indicated that the respondents were able to distinguish clearly between the seven components of the soft skill-set (communication, IT, numeracy, problem solving, learning how to learn, team work, and subject-specific competencies). They were able to reflect on their own level of generic skills, and to identify which of the seven skills they practised.

The students demonstrated a medium rating of generic skills in term of numeracy, learning how to learn, problem solving and subject-specific competencies. Lecturers or tutors suggested encouraging the students to the practice the generic skills. The graduates must be able to comprehend and analyse current and future work challenges with a critical mind and use their generic skills to develop their self quality, succeed in their career, satisfy stake-holder, and none less contribute to their country. It is particularly important, due to the lack of generic skills practice among the students, that Faculty should encourage lecturers to implement learning activities that aim to improve students' generic skills to ensure a minimum mean score of 3.41 to 4.20, that is, the "high level" banding of generic skills.

There are some explanations behind these findings: first, there is no guidance curriculum implementation or blue print at university, faculty and department for embedding soft-skills into teaching and learning process. The second, no serious plan and action in lecturer syllabus and lesson plan to encourage graduate with generic skills, as faculty and university do not suggest doing so. The third, there is no the standard input, process and output of University. There is no strong commitment of universities to plan, monitor and, evaluate the quality input, process and output of university.

The challenge face of generic skills no because of Looking form the lecturer as the due to lack facilities, bad administration system, bad of service, The limited generic skills revealed by this study are therefore of concern. Specifically, our study questions the assumption that generic skills are an inevitable outcome of time spent studying at university, and as discussed, this raises an issue that has received considerable attention both within and beyond HE institutions. Lecturers should make the connections between the various parts of the teaching syllabus more explicit, in order to forge stronger links between knowledge content and generic skills. At the same time, the promotion of generic skills should be highlighted as one of the strengths of graduate training at university.

Graduates should leave higher education better and stronger than as they entered it, and this improvement should be attributable to the undergraduate curriculum, rather than simply to the fact that three to five years have passed. Graduates need to be equipped with generic skills that they can use to "sell themselves" to employers. By practising these generic skills in and outside of the classroom will enable students to become more effective,

independent learners during their studies, and will enhance their employment prospects following graduation. As a result, the university graduate should leave with three main attributes, namely employability, life-long learning, and good citizenship (Hadiyanto, 2012). In short, this study contributes to the issues surrounding the development of generic skills at university, and its results may be used to inform, support, and plan innovations within the university curriculum, teaching and learning.

6. Conclusion

This study was conducted at Faculty of Economics University Indonesia, in order to identify the level of generic skills being applied through the learning activities, particularly those should be provided starting at the first to third year of the BEd (Hons) undergraduate programme through learning process, as well as to monitor students' general awareness of and engagement in these skills. In conclusion, the students were not strongly engaged to practice the generic skills at either university. The universities should design, embed and implement generic skills into curriculum, syllabus and system assessment. By programming this, it is expected the University graduates in Indonesia will have high competitive value in Job Market moreover to welcome free trade market era in ASIA.

References

ACRL. (2004). *Information literacy competency standards for higher education.* American Library Association. Retrieved March 23, 2009, from http://www.ala.org/acrl/ilcomstan.html

Ambigapathy, P., & Aniswal, A. G. (Eds). (2005). *University curriculum: An evaluation on preparing graduates for employment*. Higher Education Research Monograph 6. Pulau Pinang: National Higher Education Research Institute. Retrieved July 18, 2008, from http://www.usm.my/ipptn/fileup/University20Curriculum1.pdf

Bath, D., Smith, C., Stein, S., & Swann, R. (2004). Beyond mapping and embedding graduate attributes: Bringing together quality assurance and action learning to create a validated and living curriculum. *HERD*, *23*(3), 313-328. http://dx.doi.org/10.1080/0729436042000235427

Bennett, N., Dunne, E., & Carre, C. (2000). *Skills development in higher education and employment*. Buckingham: SRHE & Open University Press.

Borthwick, J., & Wissler, R. (2003). *Postgraduate research students and generic capabilities: Online directions*. Canberra: Department of Education, Science and Training Research Evaluation Programme.

Business Council of Australia (BCA). (2006). *New concepts in innovation: The keys to a growing Australia*. Melbourne: BCA.

Cook, R., & Slife, B. (1985). Developing problem solving skills. *Academic Therapy*, *21*, 5-13. http://dx.doi.org/10.1177/105345128502100101

Cornford, I. R. (1999). Imperatives in teaching for lifelong learning: Moving beyond rhetoric to effective educational practice. *Asia-Pacific Journal of Teacher Education*, *27*(2), 23-35. http://dx.doi.org/10.1080/1359866990270203

Crebert, G., Bates, M., Patrict, C., & Cragnolini, V. (2004). Developing generic skills at university, during work placement and in employment: Graduate's perceptions. *HERD*, *23*(2), 148-164.

Curry, P., Sherry, R., & Tunney, O. (2003). *What transferable skills should students develop during their time in college: Results of Modern Languages Students Survey*. Trinity College, Dublin.

Directorate General of Higher Education Indonesia. (2003). *Basic framework for higher education development KPPTJP IV*. Indonesia.

Ellis, P. J. A., Bell, S. B., Ployhart, E. P., Hollenbeck, R. J., & Ilgen, R. D. (2005). *An Evaluation of generic teamwork skills training with action teams: Effects on cognitive and skill-based outcomes*. Cornell University. http://dx.doi.org/10.1111/j.1744-6570.2005.00617.x

Gal, I. (1997). Big picture: What does "numeracy" mean? *GED Items*, *12*(4-5). Retrieved January 21, 2007, from http://mathforum.org/teachers/adult.ed/articles/gal.html

Hadiyanto, & Mohammed, S. (2013). Students' generic skills at the National University of Malaysia and the National University of Indonesia. *Procedia-Social and Behavioral Sciences*, *83*, 71-82. http://dx.doi.org/10.1016/j.sbspro.2013.06.015

Hadiyanto. (2010). The Development of Core Competencies at Higher Education: A Suggestion Model for Universities in Indonesia. *Educare*, *3*(1).

Hadiyanto. (2011). *The Development of Core Competencies Among Economics Students in National University of Malaysia (UKM) and Indonesia (UI)* (Doctoral dissertation). Faculty of Education, National University of Malaysia.

Hadiyanto. (2013). *Course reconstruction: From Vision, Mission into Class Room Action*. Paper presented at Applied Approach (AA) Training. LP3M. Jambi; Univeristy of Jambi.

Harrington, K., & Elander, J. (2003). Using assessment criteria to support student learning. *Investigations in University Teaching and Learning*, *1*(1), 63-66.

Irma, D. (2007, June 17). Soft skill? *Pikiran Rakyat*. Newspaper.

Jelas, Z. M., & Azman, N. (2005). Generic skills provision in higher education: A Malaysian perspective. *The International Journal of Learning*, *12*(5), 200-210.

Jelas, Z. M., Azman, N., Ali, M. M., Nordin, N. M., & Tamuri, A. H. (2006). *Developing generic skills at graduates: A study of effective higher education practices in Malaysian universities; Summary report*. Kuala Lumpur: Universiti Kebangsaan Malaysia, Faculty of Education.

Jones, A. (2009). Redisciplining generic attributes: The disciplinary context in focus. *J Stud High Educ*, *34*(1), 85-100. http://dx.doi.org/10.1080/03075070802602018

LTSN. (2002). *Resource guide: The development of key skills in higher education*. London: LTSN Hospitality, Leisure, Sport and Tourism.

Malaysian Qualification Framework (MQF). (2005). *Guidelines on standards of the bachelor degree level* (Vol. 1). Kementerian Pendidikan Malaysia. Retrieved February 21, 2007, from http://www.mqa.gov.my/ portal2012/dokumen/MALAYSIAN%20QUALIFICATIONS%20FRAMEWOR_2011.pdf

Mayer Committee. (1992). *Key competencies: Report of the committee to advise the Australian Education Council and Ministers of Vocational Education, Employment and Training on employment-related key competencies for post compulsory education and training*. Melbourne. Retrieved November 9, 2007, from https://isbndb.com/d/book/key_competencies_a01.html

Morreale, S. P., Osborn, M. M., & Pearson, J. C. (2000). Why communication is important: A rationale for the centrality of a discipline. Retrieved September 8, 2007, from http://www.natcom.org/ nca/files/ccLibraryFiles/FILENAME/000000000158/WhyCommisImportant.pdf.

Pumphrey, J., & Slater, J. (2002). An assessment of generic skills needs. *Skills Dialogues Report No. 13*. Nottingham: Dfes.

Qualifications and Curriculum Authority. (2000). *Key skills units (Levels 1-5)*. London: QCA.

Scottish Qualifications Authority. (2003). Key competencies: Some international comparisons: Policy and Research. *Research Bulletin*, *2*. Retrieved August 29, 2009, from http://www.sqa.org.uk/ files_ccc/Key_Competencies.pdf

Smith, R. M. (1982). *Learning how to learn: Applied theory for adults*. Milton Keynes: Open University Press.

Star, C., & Hammer, S. (2007). Teaching generic skills: Eroding the higher purpose of universities, or an opportunity for renewal? *Oxford Review of Education*, *34*(2), 237-251. http://dx.doi.org/10.1080/ 03054980701672232

UNESCO. (2007). *Higher education in south-east ASIA*. Thailand. Retrieved November 14, 2007, from http://unesdoc.unesco.org/images/0014/001465/146541e.pdf

Washer, P. (2007). Revisiting key skills: A practical framework for higher education. *Journal of Quality in Higher Education*, *13*(1), 57-67. http://dx.doi.org/10.1080/13538320701272755

Copyrights