Soft Skill Integration for Inspiring Critical Employability Skills in Private Higher Education

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ABSTRACT

Purpose: The study aims to examine the influence of soft skill integration on the interpersonal soft skill levels of diploma business students in the private higher education institutions based in the northern region of Peninsular Malaysia. Research Methods: The study was guided by the Soft Skill Development Model (2006) and the Soft Skill Integration method, according to Devadason, Subramaniam and Daniel (2010). This paper applied a descriptive quantitative survey method to assess the levels and relationships between the variables. A set of self-administered questionnaires were adapted based on Devadason, Subramaniam and Daniel’s (2010) instruments. The questionnaires were distributed through a proportionate stratified random sampling method to 429 respondents from 12 private higher learning institutions in three northern states of Peninsular Malaysia. Descriptive analysis, correlation, and regression analyses were applied in the findings. Findings: The results revealed a significant influence of the overall soft skill integration towards communication and teamwork levels. The study also advocated the significant impact of soft skill integration in problem-solving and critical thinking on all of the four essential soft skills elements. Implications for Research and Practice: Despite decades of emphasis on soft skill development, soft skill integration in Malaysia is still not at an optimal level. Embedding soft skills would lead to more real-life experiences, and they will horn students’ skills, especially their problem-solving ability. The empirical evidence of soft skill integration contributes towards innovative teaching and learning experiences, social innovation, and the impact on school policies to develop what is required in the industry.

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Introduction

There have been prevailing employability issues of current graduates worldwide (Crossman & Clarke, 2010; Azina & Ismail, 2011; Blom & Saeki, 2011; Abbasi, Ali & Bibi, 2018). Buzdar, Jalal and Mohsin (2018) revealed the mismatched graduates' attributes between their acquired and required job attributes. In Malaysia, local graduates lack adequate critical thinking and problem-solving skills (Mahat, Hassan, Chiu, Chik & Yahya, 2009; Abdullah, Keat, Ismail, Abdullah & Purba, 2012; Yoke & Ngang, 2017). Moreover, it was also advocated that language barriers have been one of the main causes of most Malaysian graduates' communication problems (Azina & Ismail, 2011). Regarding the issue of deficiencies in employability skills, this poses some threats to the healthy social syndrome as it could have affected the mental well-being and confidence levels of young graduates (Strandh, 2000).

Meanwhile, Freire-Seoane, Pais-Montes and Lopez-Bermúdez (2019) suggested higher employment chances by acquiring some generic competencies, especially in humanities or social sciences. The industry requires business graduates to be “work-ready” upon graduation. Employable graduates should be all-rounded, competent in hard or technical knowledge, and competent in the necessary soft skills to be proficient at work (Rasul & Mansor, 2013).

These requirements, coupled with the increasing demand for skilled graduates in competitive markets, impose pressure or expectation on higher educational institutions to churn in the necessary labour supply (Ritter, Small, Mortimer & Doll, 2018). Students concurred that higher education significantly impacts their soft skill development (Nikitina & Furuoka, 2012; Low, Samkin & Liu, 2013). It was also stressed that some university programs, such as accounting, should develop technical, functional, and personal skills, which are highly needed in the job market (Mameche, Omri & Hassine, 2020).

Marcial (2012) advocated that soft skills are not innate, but they can be learned. According to Spanjaard, Hall and Stegemann (2018), integration by embedding experiential learning helped improve outcomes. Devadason et al. (2010) pointed to the complementary nature of soft skill integration in the formal curriculum using the Malaysian Model of Soft Skill Development (2006) through the infusion method, which refers to the embedded activities and learning processes of teaching. Gaps between the expected and acquired soft skills could be improved by practising various innovative teaching techniques and approaches, including in-door classroom learning and out-of-class exposure (Adams, 2010; Ahmad & Rashid, 2011; Cinque, 2013; Groh, McKenzie & Vishwanath, 2014). However, Rothertham and Willingham (2010) cautioned that educators and policymakers must not short-change the content of delivery for a hasty or fleeting pursuit of skills, especially when knowledge is essential in the subjects.

The study focused on the most essential soft skills for employment, and therefore the soft skill integration of these essential soft skill components, namely the communication skills, critical thinking and problem solving, teamwork, ethics and
professional moral. These skills were selected as they were regarded as the most common and primarily required by a fresh entrant to the job market upon graduation (Singh and Singh, 2008; Robles, 2012).

Literature Review

According to Rani (2010), soft skills or employability skills are learned behaviours that have to be trained, and a person must undergo some focused application to acquire the set of skills. Jawale, Bendgude, Husain, Thosar and Tandon (2011) advocated several methods to enhance soft skills at work, including (i) workshops, (ii) proper rewards and recognition, (iii) use of instructional materials, (iv) employee involvement and empowerment, (v) meditation, (vi) optimistic motivation, and (vii) leadership development programs. Vogler, Thompson, Davis, Mayfield, Finley and Yasseri (2018) pointed to the importance of integrating soft skills through role-play and interdisciplinary collaborations among instructors in project-based learning (PjBL). The use of information technology and behavioural style learning indicated some successes of soft skill incorporation in science, technology, engineering, and mathematics (STEM) learning (M’Randa, Price, & Perez, 2018). Researchers proposed to revamp the curriculum to reflect more focus on students’ employability skills, rather than too examination-oriented or technically inclined processes (Devadason et al., 2010; Direito, Pereira & de Oliveira Duarte, 2012; Pedrazzini, 2012; Sisson and Adams, 2013; Utaminingsih, 2013; FitzPatrick, 2015).

Soft Skill Integration to Enhance Employability

Daniel (2010) and Devadason et al. (2010) advocated soft skill integration in coursework components to enhance students’ soft skill developments for the right balance of diverse abilities. According to Maxwell and Armellini (2019), there was a significant improvement in graduate developments through the integrated framework’s deliberate structure. A significant influence arises from creative coursework and employability module implementations towards graduates’ confidence in various soft skills. These include critical thinking and problem-solving skills that enhance employability (Miller, 2018; Pepper and McGrath, 2019). According to Nor and Ismail (2015), internships also positively impacted accounting students’ academic performances, especially in auditing and taxation.

Embedding or integrating soft skills can be achieved by designing activities in the curriculum that infuses responsibility; however, they require particular skills to achieve the learning outcomes (Sisson and Adams, 2013). Sisson and Adams (2013) proposed soft skill integration in the curriculum through case studies, problem-based learning, or real-world simulation practices that require student participation. Kerby and Romine (2010) encouraged course-embedded curriculum designs and assessments in accounting to develop the oral presentation skills of the students, this is aimed to hone students’ communication skills, especially in verbal communication. Some other techniques to increase students’ oral presentation skills include embedding actions or practical learning through the ‘Questioning Insight’ technique or deploying other practical approaches in lessons (Groves, Orbaek White, Panya & Stewart, 2018).
Questioning Insight is a questioning technique in action learning that includes self-questioning and reflection, resulting in higher order thinking skills, inspiring aspiration, or new ideas. Additionally, Langmead, Sedaghat and Unger (2010) purported to incorporate ‘International Accounting’ into the MBA curriculum to uphold ethics and professional moral levels because of the on-going global financial reporting crisis.


It is also known as the Embedded Model of Soft Skill Development. The Embedded Model was created by the Ministry of Higher Education in Malaysia to initiate strategy and actions to build up holistic and balanced human capital (Kementerian Pengajian Tinggi Malaysia, 2006). The Soft Skills Development Model by the Ministry of Higher Education in Malaysia advocated three main approaches for soft skill development, (i) embedded soft skills training, informal teaching, and learning activities, (ii) supporting co-curriculum activities, and (iii) influential residential college life and campus environment. Method (i) is called the Embedded Model’s ‘infusion approach’ to achieve the learning outcomes or the course objectives. It stresses soft skill integration through embedded activities in the curriculum. In applying the embedded model, various types of activities are encouraged in course delivery or teachings. The seven essential components of soft skills identified in this model are (i) communication skills, (ii) critical thinking and problem-solving skills, (iii) teamwork, (iv) life-long learning and information management skills, (v) entrepreneurship skills, (vi) ethics and professional moral, and (vii) leadership skills. The model has been studied, reviewed, and highly recommended for Malaysia’s human capital development to meet industry needs and development in this competitive global era.

Research Questions

1. What are the levels of soft skill integration in the curriculum being practised in Malaysian Private Higher Education Institutions?

2. What are the levels of soft skills of the students in Malaysian Private Higher Education Institutions?

3. Are there any significant influences of soft skill integration on students’ soft skill levels in Malaysian Private Higher Institutions?

Hypothesis

H0: There is a positive influence of soft skill integration on students’ soft skill levels in Malaysian Private Higher Institutions.
Method

Research Design

A quantitative survey research method was used to collect anonymous data from participants across three different states in the northern region of Peninsular Malaysia. The data was obtained through self-administered questionnaires from randomly selected students in Malaysian private higher learning institutions.

Research Sample

The study used a proportionate stratified random sampling method to gather data from 429 final year diploma business students from 12 out of the 33 private higher learning institutions in the three states of northern Peninsular Malaysia, namely Kedah, Penang, and Perak. The participation rate was around 36 per cent.

Research Instruments and Procedures

A set of self-administered questionnaires were employed. The soft skill integration was measured using 25 items adapted from the research of Devadason et al. (2010). Soft skill levels were measured based on the adopted Malaysian Soft Skill Development Model (2006), consisting of 53 items. All items were assessed on a five-point Likert scale basis.

A pilot study was conducted to affirm the content validity and reliability of the constructs. Content validity was reviewed and verified by a group of panel experts in educational administration and management. A single item questionnaire was therefore highly recommended. Language and sentence checking was done by a language teacher in the private higher learning industry. Varimax, Orthogonal, and Kaiser Normalisation Confirmatory Factor Analysis was carried out to ensure the non-existence of singularity or multi-collinearity issues (Kaiser, 1958). The results indicated a total percentage variance of 52.98 per cent for soft skill integration and 51.09 per cent for soft skill levels with a loading factor of more than 0.5 for the two constructs. The two constructs, soft skill integration and soft skill levels, had a good reliability Cronbach coefficient of more than .80 (Ary, Jacobs & Razavieh, 2002). Therefore, further confirming the model fit for the data set in this study. Table 1 shows the confirmatory factor analysis results of the constructs.

The levels of soft skill integration and soft skills components were categorised, according to Nunnally (1978) and grouped into three main categories, ranging from low, moderate, to high levels. The mean scores ranging from 1.00 to 2.33 were ranked at a low level, 2.34 to 3.67 moderate level, and 3.68 to 5.00 at a high level (Nunnally, 1978).
Table 1

Factor Analysis: Percentage Variances

<table>
<thead>
<tr>
<th>Construct Dimension</th>
<th>Construct 1: Soft Skill Integration (SSI)</th>
<th>Construct 2: Critical Employability Skill Levels (SSL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSI: Teamwork</td>
<td>32.99</td>
<td>-</td>
</tr>
<tr>
<td>SSI: Ethics and Professional Moral</td>
<td>8.04</td>
<td>-</td>
</tr>
<tr>
<td>SSI: Critical Thinking and Problem Solving</td>
<td>6.73</td>
<td>-</td>
</tr>
<tr>
<td>SSI: Communication skills</td>
<td>5.22</td>
<td>-</td>
</tr>
<tr>
<td>SSL: Communication skills</td>
<td>-</td>
<td>37.61</td>
</tr>
<tr>
<td>SSL: Teamwork</td>
<td>-</td>
<td>6.53</td>
</tr>
<tr>
<td>SSL: Critical Thinking and Problem Solving</td>
<td>-</td>
<td>3.69</td>
</tr>
<tr>
<td>SSL: Ethics and Professional Moral</td>
<td>-</td>
<td>3.26</td>
</tr>
<tr>
<td>Total</td>
<td>52.98</td>
<td>51.09</td>
</tr>
</tbody>
</table>

Data Analysis

Descriptive and inferential data analysis were conducted using IBM SPSS version 23. Correlation and regression analysis between the variables were run based on the regression model $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2$ while;

- $Y$ = variable criterion of the study
- $\beta_0$ = constant regression
- $\beta_1$ = coefficient regression of soft skill integration
- $X_1$ = soft skill integration
- $\beta_2$ = coefficient regression of critical employability skill levels
- $X_2$ = critical employability skill levels

Results

Respondent Profile

The total respondents were 429 final year diploma business students from private higher learning institutions in northern Peninsular Malaysia. The majority of them were aged between 19 to 20 years old, and 67.4 per cent of the respondents were females. In terms of course majors, 67 per cent were from business management and administration, 18.2 per cent were from accounting, and 14.8 per cent were from the general business study.
Descriptive Findings

During the preliminary analyses, a t-test was performed to determine whether there were gender and age differences concerning the variables. The results revealed that there were no significant differences in the research variables at $p > .05$. Additionally, the means, standard deviations, and inter-correlations between the research variables are as shown in Table 2.

The Pearson correlation matrix revealed that all three soft skill integration subscales were significantly ($p < .05$) and positively correlated with the soft skill level subscales (ranging from .31 to .79).

Table 2

| Mean, Standard Deviations, and Correlation Results of the Research Variables |
|-----------------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
|                                        | $x$    | SD     | 1      | 2      | 3      | 4      | 5      | 6      |
| 1. Soft Skill Integration:              |        |        |        |        |        |        |        |        |
| Ethics and Professional Moral          | 3.75   | .64    | -      |        |        |        |        |        |
| 2. Soft Skill Integration:              |        |        |        |        |        |        |        |        |
| Teamwork                               | 3.71   | .66    | .490*  | -      |        |        |        |        |
| 3. Soft Skill Integration:              |        |        |        |        |        |        |        |        |
| Communication Skills                   | 3.62   | .60    | .490*  | .397*  | -      |        |        |        |
| 4. Soft Skill Integration:              |        |        |        |        |        |        |        |        |
| Problem Solving and Critical Thinking  | 3.52   | .55    | .534*  | .600*  | .511*  | -      |        |        |
| 5. Teamwork Levels                     | 3.72   | .58    | .417*  | .466*  | .401*  | .459*  | -      |        |
| 6. Ethics and professional moral levels| 3.59   | .60    | .313*  | .316*  | .312*  | .413*  | .668*  | -      |
| 7. Critical thinking and problem-solving levels | 3.50   | .54    | .396*  | .389*  | .393*  | .496*  | .687*  | .615*  | -      |
| 8. Communication skill levels          | 3.48   | .57    | .387*  | .389*  | .368*  | .480*  | .625*  | .572*  | .793*  | -      |

*p < .05

Levels of Soft Skill Integration and Soft Skills

The means of the soft skill integration subscales in the curriculum were between 3.52 to 3.75, while the mean scores of the soft skill levels ranged from 3.48 to 3.72, and both lay within moderate to high levels (Nunally, 1978). Therefore, the level of soft skill integration being practised in the Malaysian private higher education institutions curriculum was moderately high. Students' perceived soft skill levels in Malaysian private higher education institutions were also moderate; however, teamwork levels were high.

The findings in Table 3 in page 9 indicated that the soft skill integration in curriculum practices has significantly influenced the students' soft skill development mainly in communication and teamwork. 27 and 31 per cent of the variance changes in communication skills and teamwork levels could respectively be explained by the
linear combination of the four dimensions in soft skill integration. Nevertheless, the findings revealed a significant partial influence of soft skill integration on the soft skill levels of the diploma business students. These were in the subscales of problem-solving and critical thinking, ethics and professional moral (29 and 19 per cent of the variance changes in both dependent variables could be explained by the linear combination of the four dimensions in soft skill integration). As indicated in Table 3, the most significant impact came from integration in problem-solving and critical thinking and communication.

Overall, it could be concluded that there was a significant partial influence of soft skill integration on the diploma business students’ soft skill levels. The significant impact relies on integration in communication skills and critical thinking and problem-solving. Table 3 below summarises the effects of the respective soft skill integration on each students’ employability skill component.

Table 3

<table>
<thead>
<tr>
<th>Soft Skill Integration:</th>
<th>Communication Skills</th>
<th>Problem Solving and Critical Thinking Levels</th>
<th>Teamwork Levels</th>
<th>Ethics and Professional Moral Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.12*</td>
<td>.14*</td>
<td>.16*</td>
<td>.10*</td>
</tr>
<tr>
<td></td>
<td>.29*</td>
<td>.31*</td>
<td>.16*</td>
<td>.27*</td>
</tr>
<tr>
<td></td>
<td>.11*</td>
<td>.09</td>
<td>.24*</td>
<td>.07</td>
</tr>
<tr>
<td></td>
<td>.12*</td>
<td>.12*</td>
<td>.14*</td>
<td>.08</td>
</tr>
<tr>
<td>R</td>
<td>.52</td>
<td>.54</td>
<td>.55</td>
<td>.44</td>
</tr>
<tr>
<td>R²</td>
<td>.27</td>
<td>.29</td>
<td>.31</td>
<td>.19</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>.27</td>
<td>.28</td>
<td>.30</td>
<td>.19</td>
</tr>
<tr>
<td>F</td>
<td>39.53*</td>
<td>43.3*</td>
<td>46.75*</td>
<td>25.42*</td>
</tr>
</tbody>
</table>

*p < .05
Discussion, Conclusion and Recommendations

Soft skill integration in communication and problem-solving and critical thinking emerged as critical in influencing all four components of critical employability skill levels. Regarding soft skill integration in communication skills, the PHEI who participated in the study applied high English written assignment components and allowed students to express their ideas in discussions. Unfortunately, the English usage and the educators’ language competency levels were not rated at a high level by the students. There was also only a moderate level of interactive sessions and class presentations allocated to the tertiary students.

The most common practice in soft skill integration in critical thinking and problem solving was the application-based questions in tests or examinations. There were only moderate levels of recommended essential materials of reading by the lecturers, a lack of real-world practices, and a lack of critical and timely feedback on assignments and presentations. The study also revealed that the lecturers were not frequently linking and integrating knowledge from various fields or related disciplines in their lessons.

In terms of integration in teamwork, the students were grouped in reasonable group sizes and were given sufficient room for effective group work distribution. Moderate changes were given so that students interacted freely and coordinated their work with other teams. The findings also indicated that the educators were exemplary in ethical conducts and provided valuable guidance on general ethical conducts. The lecturers closely monitored students’ class attendance, participation, and adherence to assignment deadlines. However, according to the item rating, students were marked leniently on punctuality whether they came on time for lessons or not. Hence, this hinders the students’ habit of being punctual.

Remedios (2012), Osman, Girardi and Paull (2012) advocated the impact of lecturers on their students. This suggests that the educators have the potential to motivate or inspire students’ participation in the practices of soft skill integration in the curriculum. Subsequently, that leads to better achievement in the soft skill development by the respective students. Therefore, an educator’s attributes or personality (such as optimism, commitment, friendliness, caring and sharing attitude, diligence, and conscientiousness) act as the determinants in teaching and learning effectiveness. Therefore, selecting candidates into the teaching profession is crucial to be on the grounds of interest and passion.

Soft skills can be sharpened through frequent practices, and one of the best alternatives is by imparting soft skill integration in the curriculum (Beard, Schwieger, & Surendran, 2007). Brungardt (2011) revealed some significant improvements in leadership skills by the tertiary students who attended leadership courses and training. Unfortunately, according to Devadason et al. (2010), Nikitina and Furuok (2012), and vanKemenade (2012), integration of soft skills in coursework and tertiary education has not been fully implemented and realised. The fact is then further disclosed in this study.
While there have been some positive findings in Malaysia, nearly 25 per cent of the 96 undergraduates from various disciplines from Universiti Malaysia Sabah (UMS) regarded soft skills as part of their educational aspirations (Nikitina & Furuoka, 2012). Tran (2013), however, pointed to the passiveness of their local university students, which held back soft skill development efforts among students. Additionally, Yoke and Ngang (2017) noted that it was still a challenge to acquire participation, cooperation, and attempt from certain college business students. In their interviews with lecturers, Taylor (2016) also reported that the college students’ attitude was to pass the subjects rather than excel or do well in their programs.

Nevertheless, the efforts or endeavour must carry on. More innovative teaching and interesting approaches have to be encouraged. Embedded activities such as real-world case studies, analysis or discussions, problem-based learning, and so forth should be given more emphasis. Nealy (2011) got better results by including active learning in management courses rather than traditional teachings. According to Nealy (2011), teaching techniques such as requesting the students to analyse job applications or resumes sent to employers, error identification, and discussion in virtual classrooms proved to boost their communication and problem-solving skills.

Additionally, more integration could be accomplished by organising workshops or specific courses as some positive results were shown regardless of whether the respondents came from science or business background (Brungardt, 2011; Yadin, 2012). In Universiti Kebangsaan Malaysia (UKM), more than 70 per cent of the undergraduates agreed that enrolling in these courses helped them improve their generic skill sets (Muslim, Alias, Mansor, Salleh & Basir, A., 2012). Khasanzyanova (2017) also advocated learning through actions such as volunteering work with associations and non-governmental organisations (NGO) to provide experiential learning that could lead to soft skill acquisition, increasing their employability.

Conclusion and Recommendation

In conclusion, the study indicated some significant impact of soft skill integration in problem-solving and critical thinking had towards soft skill levels; this appears to be a good motivator and convincing fact to promote integration by educational practitioners. However, the findings, on the other hand, revealed that the overall soft skill integration did not significantly affect all of the components of soft skill levels. Additionally, the ineffectiveness of soft skill integration in ethics and professional moral to raise this particular component’s competency level brings us some doubt into its practices. Subsequently, more studies that entail other variables, different perspectives, methodologies, or approaches could be conducted to provide empirical references for future training needs, policies, or regulations by the relevant authorities.

The serious focus on soft skill integration and embedding activities acts as a change factor to mould the attributes and quality of young graduates. The study concurs that embedding soft skills or employability skills into higher education should become a priority of policymakers and universities (Pouratashi & Zamani, 2019). Furthermore, it supports Alden Rivers, Armellini and Nie (2015) towards embedding social
innovation and social impact in the design of courses and assessments. These serve as catalysts and sources of inspiration for innovative teaching practices.

According to Tan, Kanesan and Jalil (2019), soft skill integration also significantly influences the students’ quality of college life. However, factors that hamper soft skill integration include inadequate English language and most lecturers’ critical thinking skills in Malaysian public universities (Zuraidah et al., 2008). Hence, the researchers proposed for the educators to sit for English tests (Zuraidah et al., 2008). As the study’s findings pointed to the significant impact of soft skill integration in communication skills, it is highly recommended that research providers and educators should work collectively to alleviate the students’ employability skill levels. Additionally, limited time and resources for soft skill training, compact yet rigid course structures, shortage of creative and innovative academic staff were affecting the integration and development of soft skills (Nikitina & Furuoka, 2012). To overcome these, educators need to be more creative and take pride in their innovation or efforts that call for soft skill integration in the curriculum.

It is also encouraged that soft skill integration should be extended to map twenty-first-century skills such as innovation and entrepreneurship. Even though entrepreneurial skills are regarded as insignificant for employment (Singh & Singh, 2008; Rahmat, Ahmad, Idris, & Zainal, 2012), the skills can help those who enjoy work-life balance and want flexibility (Ng, Schweitzer & Lyons, 2010). As the current employment market is getting tighter and more complex, on top of the 2020 Coronavirus pandemic, it is suggested that some future studies examine the integration and approaches that hone effectively the skills needed in the Industry Revolution 4.0.

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