Using Problem-focused Approach to Nurture Creativity and Entrepreneurship among Students

Saemah Rahman\(^*\), Ruhizan M. Yasin\(^a\), NorAishah Buang\(^a\), Karine Oganisjana\(^b\), Andra Fernate\(^b\), Tatjana Koke\(^b\)

\(^a\)Faculty of Education, Universiti Kebangsaan Malaysia, 43000 UKM Bangi, MALAYSIA
\(^b\)Faculty of Education, Psychology and Arts, University of Latvia, LATVIA

Abstract

This paper discusses the use of a problem-focused approach to nurture creativity and entrepreneurship among students in a school setting. The study sample consisted of three groups of students (age 16 years old) from three secondary schools in Malaysia. The participants consist of 25–35 students from each school (\(n=95\)). The data collection took place during three workshops, which were conducted using a problem-focused approach, with participants from each school. At the end of each workshop, participants were asked to fill in an electronic diary about their experience. The participants’ reflections after the first workshop were analysed to identify the use of a problem-focused approach in the development of students’ creativity and entrepreneurship. The findings were reduced into thematic categories representing the participants’ awareness of aspects of creativity, innovation, and entrepreneurship. The results of the study highlight the participants’ positive attitude towards the use of problem focused approach. As a whole, the participants reported that the activities in the workshop were beneficial and made them aware of the opportunity to innovate using the problems encountered in everyday life. The findings suggest that exposing students to a creative and entrepreneurship-friendly environment through the use of a problem-focused approach nurtures the development of students’ creativity and entrepreneurship.

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1. Introduction

Entrepreneurship education is important to the development of human capital needed by society. Thus, we need

\(^*\) Saemah Rahman. Tel.: +603-89216456.
E-mail address: saemahukm@yahoo.com
to promote a culture of entrepreneurship and develop the skills, attitudes, and behaviours necessary to provide young people with entrepreneurial opportunities. Educational institutions at all levels (primary, secondary, and higher education) should invest in efforts to use appropriate methods to develop entrepreneurial skills. Currently, Malaysia is paying attention to the importance of entrepreneurship and innovation as presented in the Nation Transformation Program and the New Economic Model (NEAC, 2010). In this context, it is necessary to reconsider both the formal and informal education system, and to determine how teachers should be trained to facilitate this need. Entrepreneurship is a global phenomenon today. The future will be driven by innovation and entrepreneurship. Entrepreneurial skills and attitudes provide benefits to society, even beyond their application to business activity. Obviously, personal qualities that are relevant to entrepreneurship, such as creativity and initiative, can be useful to everyone in their working responsibilities and in their daily existence (Lucky, 2011). Consequently, efforts towards innovation and creativity are increasingly important. As highlighted by the World Economic Forum report (Volkmann et al., 2009), at the present time, we need innovation, new solutions, creative approaches, and new ways of operating. Thus, the time has come to focus more on developing entrepreneurial skills, attitudes, and behaviour in and outside school systems across all ages. Entrepreneurship education is needed to build human capital for future entrepreneurship-friendly communities. We need to create the types of environments that are conducive to encouraging entrepreneurial ways of thinking and behaving. In other words, we need institutional and entrepreneurship-friendly communities. Entrepreneurship education is about developing attitudes, behaviours, and capacities at the individual level. The European Commission (2008) defines entrepreneurship as ‘…an individual’s ability to turn ideas into action. It includes creativity, innovation, and taking calculated risks, as well as the ability to plan and manage projects in order to achieve objectives. This supports everyone in day-to-day life at home and in society; makes employees more aware of the context of their work and better able to seize opportunities, and provides a foundation for entrepreneurs establishing a social or commercial activity’. Entrepreneurship education—which is in some ways not yet fully understood—and further exploration on the effective approach and strategies, are needed to lead to improvement in these areas. However, as yet, there has been little attempt to draw on these findings in a systematic way to move beyond classic stereotypes and develop a wider understanding of the key issues involved in implementing entrepreneurship education. The question is how can we promote entrepreneurship, or more importantly, how can it be learned? It is clear that education plays an essential role in shaping attitudes, skills and culture from the primary level up (Volkmann et al., 2009). A review of the literature revealed that past studies concluded the importance of teaching entrepreneurship at an early age, preferably as early as in primary and secondary schools. The earlier the exposure to entrepreneurship and innovation, the more likely students will become entrepreneurial, in one form or another, at some stage in their lives. Within this time frame, the focus of entrepreneurship education shifts away from influencing values and attitudes (awareness) to teaching entrepreneurial qualities at a more practical level (readiness) (Kuip & Verhuel, 2003). In psychology, it is well known that personality is not only hereditary, but also influenced by the environment. Because children’s personalities are still malleable in early childhood, initial education can play an important role in the development of personality traits or, more specifically, entrepreneurial qualities. Therefore, the promotion of these qualities should be emphasised during the school years. One critical aspect with regard to this is how we create an entrepreneurial culture to facilitate the development of students’ entrepreneurial skills. This paper focuses on the use of a problem-focused approach to promote a creative and entrepreneurship-friendly environment as a strategy to nurture creativity and an entrepreneurship culture among students in a school setting. The use of ‘problems’ that are close to individual students, their family and community, are seen as having potential to facilitate students awareness of the entrepreneurship elements and skills during the learning process. This study aims to explore the use of a problem-focused approach to develop students’ entrepreneurialism. The hypothesis is that the use of this strategy will provide a positive and friendly environment to develop students’ entrepreneurial skills, attitude, and behaviour from an early stage. A qualitative approach was employed to explore the development of an entrepreneurial culture using a problem-focused approach.

1.1. The development of creativity and entrepreneurship

Entrepreneurship is inseparable from creativity and innovation. One of the main goals of education is to produce individuals who are able to contribute to themselves, their family, the community and the nation. Efforts to develop
quality human capital starts at school and educators need to plan a suitable curriculum to help achieve this goal. Most education systems in the world have recognized the importance of implementing aspects of creativity, innovation, and entrepreneurship in the teaching and learning process. Embedding entrepreneurship and innovation in the learning environment requires new models, frameworks, and paradigms (Lucky, 2011). Volkmann et al. (2009) stress the importance of rethinking the old systems and a fundamental ‘rebooting’ of the educational process. They claimed that an incremental change in education is not adequate in today’s rapidly changing society and asserted that we need schools, colleges, and universities that are entrepreneurial in their approach to preparing individuals for the future. Oganisjana (2010) introduced a holistic structural functional model of entrepreneurship that views the concept as a system and suggested that the most effective way to promote students’ entrepreneurship is to organise studies on the entrepreneurship process in which students learn by doing and reflecting on their experience. She claimed that it is possible to develop students’ entrepreneurial skills while learning in any discipline by leading them to solve real-life problems. This study focuses on how creative and entrepreneurial skills can be nurtured through a teaching approach that emphasizes the use of ‘real problems’ so that learning can be more authentic and meaningful to students, as suggested by the constructivist learning theory.

1.2. Problem-focused approach

The problem-focused approach in this study refers to the use of a ‘problem’ as a focal point to raise participants’ awareness of how everyday problems faced by individuals, family, and the community around them can be used as an opportunity for them to create and innovate. The first workshops were used to provide an opportunity for participants, in groups of 4-6, to examine various everyday problems that can be translated into an opportunity to invent in order to offer a solution to the identified problems. Activities in the problem-focused approach included individual activities wherein they were required to reflect on and identify the problems they encountered and determine how products are used to make life easier. They were also asked to identify the characteristic of the product they used. Consequently, each group was asked to develop a problem bank and suggest a solution through the invention of a new product or modification of an existing product.

2. Methodology

This study employed a qualitative approach involving three groups of students from three schools in Selangor, Malaysia. The participants consisted of 25-35 students from each school (n=95). The students were selected from multidisciplinary fields that include the sciences, accounting and commerce, arts, engineering drawing, and ICT. The distribution of students according to gender and schools is shown in Table 1. The groups in each school were formed in a way to include students from different disciplines in each group. The data collection involved three workshops with participants from each school. At the end of each workshop, participants were asked to fill in an electronic diary about their experience. The development of students’ entrepreneurship was analysed through their reflections with the aid of NVIVO 10. The participants’ reflections on the first workshop were used to fulfil the objective of this paper. The participants consisted of 25-35 students from each school (n=95). The students were selected from multidisciplinary fields that include the sciences, accounting and commerce, arts, engineering drawing, and ICT. The distribution of students according to gender and schools is shown in Table 1. The groups in each school were formed in a way to include students from different disciplines in each group. The data collection involved three workshops with participants from each school. At the end of each workshop, participants were asked to fill in an electronic diary about their experience. The development of students’ entrepreneurship was analysed through their reflections with the aid of NVIVO 10. The participants’ reflections on the first workshop were used to fulfil the objective of this paper.
Table 1: Distribution of samples according to gender and types of school

<table>
<thead>
<tr>
<th>Schools</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>School A (suburban)</td>
<td>17</td>
<td>19</td>
<td>36</td>
</tr>
<tr>
<td>School B (urban)</td>
<td>20</td>
<td>14</td>
<td>34</td>
</tr>
<tr>
<td>School C (rural)</td>
<td>5</td>
<td>20</td>
<td>25</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>42</td>
<td>53</td>
<td>95</td>
</tr>
</tbody>
</table>

3. Findings and Discussion

The participants’ reflections in the learning diaries after the first workshop provide information regarding their perspectives on the use of a problem-focused approach. In particular, for this paper, students’ reflections after the first workshop were used to explore their perception towards ‘problems’ in relation to the development of their creativity, innovation, and entrepreneurship. The results show that a majority of the participants concluded that problems encountered in everyday life can be used as a source of innovation. The participants also reported that the activities in the workshop helped them to generate ideas for creating a product or an invention. They acknowledged that identifying problems faced in everyday life can trigger an idea to create a product or offer solutions to solve the problem. Further analysis of the responses shows a change in students’ perceptions towards problems. One participant reported that before the workshop, they hated problems but now asserted that problems can lead to creativity and innovation. Other responses were:

‘…we shouldn’t be afraid of problems…’
‘…we shouldn’t run away from problems…’
‘…we should identify the problem … not avoiding the problems …’
‘…I learn to like “problems”…’

Overall, the participants showed a more positive attitude towards problems that they encountered in everyday life. Excerpts from the responses indicating students’ positive attitudes towards problems are as follows:

‘…problems can lead us to be more creative and innovative to find ideas to solve the problem…’
‘…with problem, I can be more creative and be more innovative…’
‘…Identifying problems encountered in everyday life can give ideas to invent…’
It can also be seen that the participants associated problems with creativity and innovation, such as:
‘…problem will move us to generate ideas to solve problems creatively…’
‘…if we analyse problems in everyday life we can get ideas and think creatively…’
‘…problems can produce creative and innovative ideas…’

The participants also acknowledged that through the activities in the workshop, they learned how to identify and solve problems that could be applied in their everyday life. Among the responses were
‘… I learn how to generate ideas’
‘… I learn many ways to generate ideas…’
‘… I used to think of only one solution before…but now I am aware that there are many ways to solve a problem…’

However, based on researchers’ observations, one of the main obstacles faced by students was that they tended to come up with problems that were not associated with the creation of products as a solution. This is a very important feature as the problem identified should lead to the creation of a product that can be used to solve the problem. Thus, the role of the facilitator is very important to guide students to focus on the right type of problems.

In terms of generating alternative ideas to solve problems at the beginning, they were influenced by stereotypical thinking. However, after exposure to the activities in the workshop, the majority of participants reported that they began to realise the importance of thinking outside the box. Some of the responses were as follows:

‘…We should think outside the box…’
As a whole, it can be concluded that four major themes emerged from the data, namely: (a) students’ awareness of the benefit of identifying problems faced in everyday life as a source of innovation, (b) positive attitude towards ‘problems’, (c) application of problem-solving skills in everyday life, and (c) the importance of thinking outside the box. These results support the use of a problem-focused approach in nurturing the development of students’ creativity and entrepreneurship. It is important that they be aware of the process and how it shapes their thinking and attitudes towards the practice of creativity and entrepreneurship in everyday life. The use of a problem-focused approach brings the learning process closer to the students’ real life as it starts with things that are close to them. One important feature is that it involves authentic learning, thus making the learning process more meaningful to students. This approach is in tandem with the constructivist learning theory, which proposes authentic learning, such as the use of real-life problems, to make learning meaningful to students (Woolfolk, 2008). Schools should encourage more programs that use authentic learning and bring students activities closer to real life so that they can see the connection between what they are learning with challenges they faced in the real world.

4. Conclusion

This study provides evidence for the usability of a problem-focused approach to expose students to an entrepreneurship-friendly environment. One important characteristic of a problem-focused approach is that it provides a creative and entrepreneurship-friendly environment that can be used as a strategy to nurture creativity and entrepreneurship among students in a school setting. Using this approach, students are exposed to authentic learning using a ‘real-world’ problem. It is proposed that this strategy be used in school settings either in curriculum or co-curriculum activities to nurture an entrepreneurship-friendly culture among the students. The first step is to inculcate the right attitude and then equip students with the right skills so that they can explore entrepreneurial opportunities in the future.

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