Validity Analysis of Graduate Entrepreneurship Career Determination Module (ECDM) Based on Cognitive Behavioral Therapy Approach (CBT)

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Abstract

The purpose of this study is to obtain the content validity of the Entrepreneurship Career Determination Module (ECDM) based on the Cognitive Behavioral Therapy (CBT) approach. Cognitive Behavioral Therapy offering a treatment approach towards the reconstruction of cognitive, trust and more positive behavior. The first phase study was conducted to construct a draft module through library research. Second phase study is to obtain the face validity and the validity of the module content. The third phase of the study is to get expert panel views and comments in the aspects of module content, sessions and activities of ECDM-CBT. The sample of the study consists of 18 experts in the field of psychology and counseling. The first phase findings resulted in 8 sessions and 20 activities within ECDM-CBT. The second phase findings show the validity value of module content according to Russell (1974) and shows that the value of validity session and activity module of ECDM-CBT is 86.8. The third phase findings show feedback and modules improvements in terms of content, sessions and activities by expert panels. At the end of this study will be able to know the aspects that need improvement before a pilot study can be conducted.

Key words

Validity Analysis, Entrepreneurship Career Determination Module

1. Introduction

Today’s higher education is facing challenges to produce high quality graduates whom in the first place, should be able to challenge themselves, versus the graduates confined within their thinking capability and are only depending on job offerings in the job market. This can be further reinforced when it is found that only 58.8% of students in institutions of higher learning are showing interest in venturing into entrepreneurship (NorFadhilah and Halimah, 2010). Until now, the rate of student involvement in entrepreneurship in public and private higher learning institutions is still low. This fact can be clearly seen based on current statistics in students’ entrepreneurship involvement after various entrepreneurship programs conducted throughout the institutions of higher learning. Up until now, only 2.5% or 3,755 graduates are involved in entrepreneurship after graduation whereas the number of unemployment among graduates reached tens of thousands each year. 2016 statistics show that 54,103 graduates still do not have jobs after 6 months of graduation. It is even more critical after six main areas of study were identified as areas which show the highest graduates’ unemployment rates. Those six fields of studies are business administration, applied science, human resource management, accounting, literature and social sciences.
This shows that a suitable approach needs to be developed to stimulate entrepreneurship determination to offer a second chance to these groups to create their own job opportunities.

1.1. Problem Statement

Each module that has been developed needs to run a pilot study to obtain the value of validity. Modules that do not have high validity values are not suitable to be implemented in experimental studies.

At present, entrepreneurship education in institutions of higher learning is more focused on issues of entrepreneurship personality development, demographic influences and situational factor and skills required to engage in entrepreneurship career. However, the main entrepreneurship education requirement needed is to cultivate determination or interest of students to be involved in the entrepreneurship (Ng et al., 2016). It is further reinforced that entrepreneurship education needs to be more structured and effective to cultivate entrepreneurship culture amongst students (Ridhuan, 2015). It can therefore be concluded here that the cultivation of determination is a key aspect that needs to be guided before the guidance of other entrepreneurship skills as well as the formation of an entrepreneur’s personality is given.

Researchers also attempted to integrate the development and testing of entrepreneurship career determination modules using an approach in the field of counseling psychology based on Cognitive Behavioral Therapy to enhance career determination in this field. Cognitive Behavioral Therapy is used as the basis for its interconnectedness between cognitive, emotional and behavioral that is compatible with the determination construct, attitude, and self-acceptance behavioral control itself which is a cognitive element. This theory selection also considers the view of earlier researchers that these cognitive elements and approaches are very important in entrepreneurship career and moreover, the cognitive approach model is expected to provide stronger prediction compared to trait approach (Sivarajah and Anchchuthan, 2013). Hence, with the various issues and problems raised by previous researchers, this ECDM-CBT is developed as a new method of applying a counseling approach to foster entrepreneurship career determination among students to encourage their involvement in this field.

2. Literature Review

2.1. Theoretical Fundamentals of the ECDM-CBT Entrepreneurship Career Determination Module

This module is developed with reference to the Cognitive Behavioral Therapy founded by Aaron Beck (1921-1993). His study found that, client’s negative interpretation towards an event would result in a reaction or action. Cognitive Behavioral Therapy (CBT) is a group psychotherapy that aims to help individuals deal with emotional problems. The term therapy describes a systematic approach to address problems, illnesses, and abnormal conditions. Meanwhile, the cognitive term refers to mental processes such as thinking and also referring to something that exists in individual minds such as dreams, memories, images, thoughts, attentions and focus. As for behavior, it refers to what is done. This includes of what is being said, on how to solve a problem, how to act and how to avoid it. Behavior also refers to action and inaction including tightening of lips, and self-thinking situations (Willson and Branch, 2006).

Beck Institute for Cognitive Behavioral Therapy, (2016) explains that the main function of CBT is to solve current problems and to teach the skills to clients in changing their thinking and non-functional behavior. The main focus of Cognitive Behavioral Therapy (CBT), is to understand the client’s self-believe disorder. The self-believe disorder is depending on how the clients think about their life experience which they have gone through. The self-believe disorder needs to be handled by assisting clients to change their unsuitable thinking by using affective and behavioral techniques. In the Cognitive Behavioral Therapy (CBT), the client’s thinking itself is the main determinant of behavior and emotion. More precisely, this theory emphasizes the importance of belief system and thought in determining behavior and feelings (Melati et al. 2017). When discussing CBT, ABC format needs to be properly understood. ABC format or better known as ABC Model is used as a basis for analyzing thoughts, behaviors and emotions.
The following table 1 shows ABC format definition as given by Willson and Branch (2006).

**Table 1.** Definition of ABC format by Rob Willson and Rhena Branch (2006)

<table>
<thead>
<tr>
<th></th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Is an Activating Event or Critical Event that has occurred, future event which is expected to happen, or events in the mind such as images, memories or dreams. A is also often described as a trigger.</td>
</tr>
<tr>
<td>B</td>
<td>Is belief including thoughts, personal rules, self-demand, living world and others and the meaning that you include with the internal and external events.</td>
</tr>
<tr>
<td>C</td>
<td>Are the consequences including emotions, behaviors and physical sensations that accompany different emotion.</td>
</tr>
</tbody>
</table>

The following figure 1 shows the relationship between thinking, feeling and behavior in CBT.

![Figure 1. Relationship between thinking, feeling and behavior in CBT by Wilding and Milne (2006)](image)

The study also refers to the Theory of Planned Behavioral. The Theory of Planned Behavioral was introduced by Ajzen (1991) as an extension of Theory of Reasoned Action introduced by Fishbein and Ajzen, (1975). In this theory, it is explained that behavior is determined by the intention or behavior determination, while determination is influenced by attitude, subjective norms and their control perceptions over such behavior (Fishbein and Ajzen, 1975). This shows that there are three important constructs that influence the determination that leads to a behavior. The three constructs are also interdependent and are the determinants of determination that will determine whether the behavior will be done or not.

Fishben and Ajzen (1985) defined attitude as something which is obtained from past experiences, learned and tends to lead to future behavior. Subjective norms are individuals’ belief in the views of the closest person towards the behavior to be done. Ajzen, (2005) also explains that subjective norms as a perception of the other person who is considered important to oneself concerning a behavior. The perceived Behavioral control in Planned Behavioral Theory is how the individuals view their ability to carry
out a behavior (Ajzen, 1987). Perceived behavioral control is also defined as individual self-efficacy. Self-efficacy is how an individual makes judgments or evaluations about his or her ability to perform an action to achieve the desired performance. Individual self-efficacy is also defined as how the individual assesses his or her ability to perform a given activity (Bandura, 1977, 1982, 1986).

3. Research objective
   1. Assess the session validity and activity value of Entrepreneurship Career Determination Module (ECDM) BCT.
   2. Assess the content validity value of ECDM-CBT Module.

4. Methodology of research
   This study is a quantitative survey study. Researcher analyzes the validity of the expert quantitatively through the cumulative score as well as analysis of the views and criticisms which have been given by expert through the module validity questionnaire that has been developed. Researcher conducted a literature review to build the perfect guidance module based on Cognitive Behavioral Therapy by referring to past studies in relation to the module development especially the writings of key figures in the field such as Aaron Beck and Judith S. Beck, Ajzen and Rusell. In order to validate, 18 experienced validity panels in the construction and implementation of modules in guidance and counseling services are appointed. The panel consists of academicians from UM, UKM, IPG Darul Aman Campus, IPG Hulu Kinta Campus and Hulu Selangor District Education Office.

5. Findings
   The first phase study findings: Module Construction

   **First Phase Findings: Module Construction**

   ![Diagram](image_url)

   **Figure 2. The Theoretical Framework of the Module on Student Entrepreneurship Career Determination based on CBT**

   Figure 2 shows the basic construction of the ECDM-CBT Module. There are eight group intervention sessions raising the entrepreneurship career determination of 20 students. Starting with the second
Session, activities are focused on changing beliefs, emotions and negative behavior aimed at stimulating positive attitude, subjective norms and self-efficacy towards entrepreneurship.

<table>
<thead>
<tr>
<th>Session</th>
<th>Submodule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Session 1</td>
<td>Introduction</td>
</tr>
<tr>
<td>Session 2</td>
<td>Identifying ECGG Based on TPB &amp; CBT and Analyzing Entrepreneurship Psychology</td>
</tr>
<tr>
<td>Session 3</td>
<td>Analyzing ABC, critical events, beliefs and impressions</td>
</tr>
<tr>
<td>Session 4</td>
<td>Addressing the irrationalities of negative perceptions in entrepreneurship</td>
</tr>
<tr>
<td>Session 5</td>
<td>Handling irrationalities of negative emotions on entrepreneurship</td>
</tr>
<tr>
<td>Session 6</td>
<td>Handling the irrationalities of negative behavior</td>
</tr>
<tr>
<td>Session 7</td>
<td>Analyzing reconsideration</td>
</tr>
<tr>
<td>Session 8</td>
<td>Strengthening positive thinking and termination</td>
</tr>
</tbody>
</table>

Figure 3. Session and sub-module based on ECDM-CBT Cognitive Behavioral Therapy

The first session of this module is the introduction session of fellow group members with the facilitator. Here, explanation about the process and guidance was also given to group members throughout the sessions. Second and third sessions focused on delivering information about sub construct of two key theories which are the basis of the module construction i.e. CBT and SCT. Fourth, fifth and sixth sessions focused on addressing the trust irrationalities, emotion and negative behavior toward entrepreneurship. Seventh session was for analyzing reconsideration and the session ended with the reinforcement of positive thinking as well as group termination.

Second Phase Findings: Expert Evaluation

A total of 18 experts have been appointed to evaluate the validity of the module content, as well as the sessions’ suitability and activities. The expert panel also provided an insight into the improvements that researchers could make to produce a better-quality module.

Table 2. Validity according to the Russel model (1974). The Entrepreneurship Career Determination Module is based on the evaluation of expert panel

<table>
<thead>
<tr>
<th>Statement</th>
<th>Percentage</th>
<th>Expert Views</th>
</tr>
</thead>
<tbody>
<tr>
<td>The content of this module meets its target population</td>
<td>87.2</td>
<td>Accepted</td>
</tr>
<tr>
<td>The contents of this module can be perfectly implemented</td>
<td>86.1</td>
<td>Accepted</td>
</tr>
<tr>
<td>The contents of this module are suitable with the time allocated</td>
<td>83.3</td>
<td>Accepted</td>
</tr>
<tr>
<td>The contents of this module can increase student’s entrepreneurship career determination</td>
<td>87.2</td>
<td>Accepted</td>
</tr>
<tr>
<td>The contents of this module can change the entrepreneurship career determination towards the better</td>
<td>87.7</td>
<td>Accepted</td>
</tr>
</tbody>
</table>
Table 2 shows the minimum percentage value for each statement as recommended. The lowest percentage value is on the 'Content of this module is suitable with the allocated time' statement while the highest percentage is on the statement 'The contents of this module can change the entrepreneurship career determination towards the better'. However, overall validity value provided by these external experts is high and this indicates that the five statements are compatible with one another. The validity values which are about the same among these 18 panels indicate that difference in opinion between the experts did not arise. Overall, validity value according to Russel's statement is 86.8%.

**Module Content Validity**

For the content validity, researchers used the specific formula as suggested by Noah and Ahmad (2005). The formula is shown in Table 3 below.

\[
\text{Total Expert Score (x) x 100% = Percentage of module contents validity}
\]

The validity of this content refers to the suitability of the activities and sessions as well as the contents of the module as a whole. The table shows validity value given by the appointed panel of experts.

**Table 3.** Validity values and activities of Student Entrepreneurship Career Determination Module based on expert panel evaluation

<table>
<thead>
<tr>
<th>Guiding session/Sub-module ECDM-BCT</th>
<th>Percentage Based on Session and Activity</th>
<th>Views</th>
</tr>
</thead>
<tbody>
<tr>
<td>Session 1: Group member introduction sessions</td>
<td>86.66</td>
<td>Accepted</td>
</tr>
<tr>
<td>Activity 1: Self-Introduction &amp; orientation</td>
<td>85.55</td>
<td>Accepted</td>
</tr>
<tr>
<td>Session 2: To know ECGG Based on SCT &amp; BCT and Analyzing the obstacles of Entrepreneurship Psychology</td>
<td>86.44</td>
<td>Accepted</td>
</tr>
<tr>
<td>Activity 1: Magic Triangle &amp; SNEK</td>
<td>86.11</td>
<td>Accepted</td>
</tr>
<tr>
<td>Activity 2: The Mind Wall</td>
<td>86.11</td>
<td>Accepted</td>
</tr>
<tr>
<td>Activity 3: My Wheel of Fortune</td>
<td>87.57</td>
<td>Accepted</td>
</tr>
<tr>
<td>Session 3: Analyze ABC, Critical Events, Trust and Impact</td>
<td>87.77</td>
<td>Accepted</td>
</tr>
<tr>
<td>Activity 1: Let’s start with ABC</td>
<td>87.77</td>
<td>Accepted</td>
</tr>
<tr>
<td>Activity 2: My ABC</td>
<td>87.22</td>
<td>Accepted</td>
</tr>
<tr>
<td>Activity 3: What to Replace</td>
<td>87.22</td>
<td>Accepted</td>
</tr>
<tr>
<td>Session 4: Tackling Irrational Negative Perception on Entrepreneurship</td>
<td>86.43</td>
<td>Accepted</td>
</tr>
<tr>
<td>Activity 1: Table Tower</td>
<td>86.66</td>
<td>Accepted</td>
</tr>
<tr>
<td>Activity 2: What Are They Saying?</td>
<td>85.55</td>
<td>Accepted</td>
</tr>
<tr>
<td>Activity 3: I Then and Now</td>
<td>86.66</td>
<td>Accepted</td>
</tr>
<tr>
<td>Session 5: Tackling Irrational Negative Emotions towards Entrepreneurship</td>
<td>86.29</td>
<td>Accepted</td>
</tr>
<tr>
<td>Activity 1: Challenges, Expectations and Actions</td>
<td>87.22</td>
<td>Accepted</td>
</tr>
<tr>
<td>Activity 2: The Living Sacred</td>
<td>85.00</td>
<td>Accepted</td>
</tr>
<tr>
<td>Activity 3: Emotions &amp; Solutions</td>
<td>86.66</td>
<td>Accepted</td>
</tr>
<tr>
<td>Session 6: Tackling Irrational Negative Behavior towards Entrepreneurship</td>
<td>84.61</td>
<td>Accepted</td>
</tr>
<tr>
<td>Activity 1: Let’s do it now</td>
<td>86.66</td>
<td>Accepted</td>
</tr>
<tr>
<td>Activity 2: Value of a piece of Marshmallow</td>
<td>78.88</td>
<td>Accepted</td>
</tr>
<tr>
<td>Activity 3: Behind the Tycoon Empire</td>
<td>88.30</td>
<td>Accepted</td>
</tr>
<tr>
<td>Session 7: Analyzing Reconsiderations</td>
<td>84.41</td>
<td>Accepted</td>
</tr>
<tr>
<td>Activity 1: Let’s Reconsider!</td>
<td>87.22</td>
<td>Accepted</td>
</tr>
<tr>
<td>Activity 2: I’m Positive</td>
<td>81.66</td>
<td>Accepted</td>
</tr>
<tr>
<td>Session 8: Strengthening Positive Thinking &amp; Termination</td>
<td>84.44</td>
<td>Accepted</td>
</tr>
<tr>
<td>Activity 1: Strengthening Positive Thinking</td>
<td>82.77</td>
<td>Accepted</td>
</tr>
<tr>
<td>Activity 2: Termination</td>
<td>86.11</td>
<td>Accepted</td>
</tr>
<tr>
<td>Overall value of the ECM-CBT Module</td>
<td>85.75</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

Table 3 shows the percentages for 20 activities in eight group sessions conducted. Minimum percentage is 84.41 i.e. for session 7 while the maximum percentage is 87.57 for the 3rd session. The total
validity percentage of this module is 85.75 i.e. more than 70%. This means that the level of ECDM-CBT validity is high and has a strong consistency.

Table 3 shows the comments provided by the validity panels involved.

**Table 3. Proposed Module Content Improvement by expert panel module evaluators**

<table>
<thead>
<tr>
<th>Expert</th>
<th>Content</th>
<th>Activity</th>
<th>Time</th>
<th>Target Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>This module is constructed based on theoretical framework and can potentially be implemented on the population</td>
<td>Constructed Activities are in line with psycho-educational methods. Can still be improved from the aspect of activity steps.</td>
<td>Suitable time</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>This module is suitable and able to impact entrepreneurship.</td>
<td>Each activity has its own objectives. Suggestions on the arrangement of activities for some sessions marked. For example, begin with wheel of fortune activity and the Mind Wall as the last activity.</td>
<td>The addition of time may be necessary to certain marked activities.</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>This module is suitable to increase entrepreneurship determination</td>
<td>Suitable module activity.</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4</td>
<td>This module is suitable for this study, This module is good and satisfying. A few corrections about the suitability of words and the use of sentences.</td>
<td>The terms in this activity need to be standardized as a whole</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5</td>
<td>This module is good and satisfying.</td>
<td>Overall, this activity is good and satisfying.</td>
<td>-</td>
<td>Meeting target groups.</td>
</tr>
<tr>
<td>6</td>
<td>This module is good and satisfying.</td>
<td>It is proposed that scanning about previous successes and my strengths be included.</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>7</td>
<td>This module is good and satisfying.</td>
<td></td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>8</td>
<td>Modules planned based on the CBT and ECDM framework are appropriate and meet the level of subject of the study.</td>
<td>Suggest interesting activities suitable with student's age level</td>
<td>-</td>
<td>Meeting target groups.</td>
</tr>
<tr>
<td>9</td>
<td>This module is satisfactory.</td>
<td>Synchronize the term 'you' in the activities</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>10</td>
<td>This module is good and satisfying</td>
<td>Suitable activities</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>11</td>
<td>This module is good and can be further diversified with a variety of other examples and auxiliary materials.</td>
<td>The term 'sacred' is better replaced by another term.</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>12</td>
<td>This module is suitable for implementation.</td>
<td>The activities in this module are interesting.</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>13</td>
<td>This module is suitable and satisfying.</td>
<td>The activity is good and interesting and able to open the mind. Improve sentence structure in action step.</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>14</td>
<td>This module is good.</td>
<td>Suitable activities.</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>
The comments of the expert assessors in relation to the improvement of each activity are as in Table 3 above. The whole module is good and can be improved in terms of activities as suggested by each panel of experts.

6. Discussions

The result of the evaluation conducted on the validity of the module content is as following, a minimum percentage of each activity is 84.41 while the maximum percentage is 87.57. Overall the percentage of validity is 85.75 % i.e. above 70% and this indicates that this module has a high validity. Based on the recommendations given by the expert panels, there are some improvements that can be made to improve the quality of this module. Among them are detailing the steps in the activity module, standardizing the terms used, extending the duration of the activity, improving the structure of the sentences and changing the terms which are used to the more appropriate terms.

7. Conclusions and Recommendations

Implications of this study are more focused on the determination development or the interest of students towards entrepreneurship. The combination of the two theories i.e. the Cognitive Behavioral Therapy and Theory of Planned Behaviour proved to have potential as a basis for the development of interventions to foster entrepreneurship determination among the students. This is evidenced by high validity findings where almost the whole activity session reaches over 70% of the validity value.

This high validity value motivates researchers to apply the ECDM-CBT in giving guidance to nurture the entrepreneurship career determination of student. Thus, the implication of the study is to provide theoretical and practical ECDM-BCT that can be used by students in higher learning institutions in the field career development and career counseling in universities. The success in fostering entrepreneurship career
determination can assist students in planning their careers even during their studies and able to produce graduates who are job creators and not merely job seekers.

Based on the findings of this study, several aspects are recommended;

1. Based on the good and high validity of ECDM-CBT, it is appropriate to conduct a pilot study to see the reliability of the ECDM-BCT.

2. Intervention approach which incorporates the Cognitive Behavioral Therapy (CBT) approach and the Theory of Planned Behavioral (TPB) can be studied experimentally to see the impact of Entrepreneurship Career Determination Module (ECDM) in terms of addressing the low entrepreneurship career determination among students.

Overall, this study was successful in building the Entrepreneurship Career Determination Module (ECDM) using the Cognitive Behavioral Therapy (CBT) approach. The validity findings, according to Russel (1974) have proven a high value based on the scores provided by each expert was over 70% and overall percentage of each statement was over 80%. Hence, it is concluded that ECDM-BCT can be developed and applied in further experimental studies.

References