Module Development Models For Developing the Career Readiness-Personality (Cr-P) Module

Nik Rafidah Nik Yusoff, Mastura Mahfar, Muhammad Sukri Saud

Abstract: The purpose of this study is to compare Module Development Models to develop a Career Readiness-Personality (CR-P) Module. There are several Module Development Models that have been identified, namely Russell Module Development Model, Sharifah Alwiyah Alsagoff Module Development Model and Sidek Module Development Model. However, to develop the Career Readiness-Personality (CR-P) Module, the researcher had selected the Sidek Module Development Model based on some justifications stated in this article. The Career Readiness-Personality (CR-P) Module was developed based on the Social Cognitive Career Theory and the Big Five Personality Model. Once this module was fully developed, the content validity of the module was determined based on the evaluation done by eight experts. The content validity value for this module is 0.92. It can be said that by using the Sidek Module Development Model, the content validity for the Career Readiness-Personality (CR-P) Module is high and the module is recommended for the reliability test as well as an experimental study to test the effectiveness of the module.

Keywords: Career Readiness-Personality (CR-P) Module, Sidek Module Development Model, Career Self-Efficacy, Big Five Personality Model

I. INTRODUCTION

Career readiness and personality are among the most important aspects that should be paid attention by university students. The level of career readiness can be measured by career self-efficacy in the process of career development and these elements can be learned and enhanced through a systematic method (1). Career self-efficacy refers to the ability of individuals to consider, organize and implement the desired actions to achieve their desired career goals based on the specific skills that they possess (2). In addition, personality is also an important aspect of university student career readiness (3–7). Therefore, this study will develop the Career Readiness-Personality Module as it looks at the importance of career self-efficacy and personality for university students before venturing into the field of work (6,8,9).

The development of this Career Readiness-Personality (CR-P) Module is based on the Social Cognitive Career Theory and the Big Five Personality Model. Social Cognitive Career Theory (SCCT) was originally introduced by Bandura in 1986 with the name Social Cognitive Theory (10,11). Social Career Cognitive Theory focuses on three things, namely the development and explanation interest regarding career, academic and career choice, and performance and hard work in education and career (12).

Bandura introduced Self-Efficacy Model (13) and Social Cognitive Theory Diagram Model (13). Self-Efficacy Model describes the behavior components, personality factors, and environmental factors that are interdependent, whereas Social Cognitive Theory Diagram Model describes the interaction between career choice and self-efficacy which is ultimately results in achievement and leads to an increase in one's self-esteem (13). According to (14,15), there are four types of self-efficacy which are self-regulatory self-efficacy, social self-efficacy, academic self-efficacy and career self-efficacy. Career self-efficacy is related to an individual's confidence, trust, ability, and capability to consider choice, making decision, planning, take action, accomplish tasks, and involve in particular careers or jobs (14,15). There are four dimensions to career self-efficacy namely self-appraisal, occupational information, goal selection, planning and problem solving (16,17).

Meanwhile, the Big Five Personality Model is divided into five dimensions namely openness to experience, conscientiousness, extraversion, agreeableness and neuroticism (18). Among the meaning of openness to experience is curious (19–21). While according to (22–25), the meaning of openness to experience is intellect. In addition, among the meaning of conscientiousness is a systematic (19,21,26) and task-oriented individual (27,28).

As for the extraversion meaning, among them is love to communicate (19,20,26), socialize (19) and interact with other people (28,29). On the other hand, the meaning of agreeableness is cooperative (19,26,30), polite (19,21,30) generous and forgiving (19,21). The meaning of neuroticism is those who have the following characteristics of stress, worry, unstable, uncertain, fear, nervous, depressed, lacking of rest, emotional and unsafe (19), while according to Hee (2014), the meaning of neuroticism is depressed, slightly disheartened and grumpy.

* Correspondence Author

Nik Rafidah binti Nik Yusoff*, Azman Hashim International Business School, Universiti Teknologi Malaysia, Johor Bahru, Johor Malaysia. nikrafidah@utm.my

Mastura binti Mahfar, Faculty of Social Sciences and Humanities, Universiti Teknologi Malaysia, Johor Bahru, Johor Malaysia. mastura@management.utm.my

Muhammad Sukri bin Saud, Faculty of Social Sciences and Humanities, Universiti Teknologi Malaysia, Johor Bahru, Johor Malaysia. p-sukri@utm.my

II. MODULE DEVELOPMENT MODELS

The development of the module should be based on the appropriate model to ensure that the impact of the implementation of the module will have a positive impact on the subject that involved in the study. There are several models that have been developed by few module developers namely, Russell Module (31), Sharifah Alwiyah Alsagoff Module (32) and Sidek Module Development Model (33). However, the Sidek Module Development Model was selected because of several reasons.

A. Russell Module Development Model

Russell developed a model for developing modules in 1974. According to (31), the first thing to consider is the objective that the students want to achieve. The proposed objectives are three or four objectives (31). Then, module developers also need to formulate items or questions to test students' understanding of the module (31). Then, the questions or items of measurement can be constructed based on the objectives or based on the steps of each activity contained in the module (31).

In addition, the module developers should make the analysis to be related to the achievement of students who will be using the module (31). The modules that are built should take into account the students' capabilities, intelligence, and abilities because each of student achievement categories requires a different module approach (31). Furthermore, in order to understand and strengthen the module, it needs to be organized in a certain order and media selection must be made accordingly (31).

Then, the completed module should be piloted to test its weaknesses, validity and reliability and subsequently an experimental study will be conducted to test its effectiveness (31). If the module has a good result, that is, it manages to achieve the stated objectives, then the module is considered to meet the requirements of the module and it can be used (31). However, if the activity of the module has been validated, monitoring should be done on the students' ability and efficiency in conducting activities in the module (31).

(31) points out that there are five conditions of validity that must be followed to ensure that the module is valid which are the module activity needs to meet the target population, the learning situation or the method of implementation of the module is satisfactory, the time taken to complete the module activity is sufficient, the module activities manage to improve the students' achievement, and the module activities manage to change the student attitudes to be more positive.

According to (31), the most important stage in developing a module is to try out the module's activities to students because at this stage, the module developers will determine whether the students can achieve the objectives stated in the module's activities or not. If the students are not able to achieve the intended goals, then the trial process needs to be repeated (31). Through this trial process, module developers will receive a variety of feedback related to the module such as spelling errors, sentence structure, understanding of the activities performed, suitability of the module sequence and other relevant requirements (31). As a result of this feedback, the module developers will improve the content of the module to be better in quality (31).

B. Sharifah Alwiyah Alsagoff Module Development Model

(32) has developed a model for developing modules. According to (32), a good module is a module that students can easily follow and understand. (32) presents the module development procedure in the order and procedure that begins with the selection of student or target group. According to (32), module developers need to determine their target audience by taking into account the factors of age, intelligence, and socioeconomic status. Then, the module developers need to decide on the concepts, principles, skills and procedures to be included in the module (32). A module should be compatible with the ability and intelligence level of a student and even the sequence of the module development steps should be paid attention to (32). The module developers also need to determine the objectives to be achieved after completing the module (32).

Next, the module developers construct the test questions to test the students' mastery level. Subsequently, module developers also need to determine the appropriate content of the subjects and various learning strategies are later selected to attract the students' interest (32). To strengthen the students' understanding of this module, module developers can use different types of media (32). Finally, the built-in modules need to be structured and integrated accordingly before testing their effectiveness in the field testing (32).

C. Sidek Module Development Model

Sidek Mohd Noah introduced a more comprehensive model to develop a more quality module in 2001 (33). This model has two stages with different purposes (33). The first stage is the stage of preparing the draft module consisting of goal setting, theory identification, rational, philosophy, concept, target and timeframe identification, needs analysis, objectives determination, content selection, strategy selection, logistics selection, media selection, and draft module compilation (33). The second stage is the stage of testing and evaluating modules consisting of pilot study, determination of validity, reliability and norms, and evaluation of the effectiveness of the module (33) . The first stage is called draft because this module is not yet proven its validity and reliability (33). For the second stage, the draft module will be piloted in a pilot study to test its validity and reliability (33). The Sidek Module Development Model is as shown in Figure 1. Table 1 below describes the steps of developing the Career Readiness-Personality (CR-P) Module based on the Sidek Module Development Model.

Table 1: The steps of developing the Career Readiness-Personality (CR-P) Module based on the Sidek Module Development Model.

Stage 1: preparing the Draft Module

Steps	Descriptions
Construct the goal. Decide on the purpose of constructing the module. Construct the goal to broadly determine the content of the module and its target group.	Identify the impact of the Career Readiness-Personality (CR-P) in improving the career self-efficacy and the *Big Five* personality.
Identify theory, rationale, philosophy, concept, target and time period. The concept of activities also needs to be identified to reflect the implementation of the module in real-life situations such as drills, lectures, exercises and games. To ensure that the module is developed properly and accurately, the target group needs to be specifically identified. The length of time for each module to be implemented must also be precisely defined in order to achieve the set goals and to ensure the appropriate time to be used.	The implementation of the Career Readiness - Personality (CR-P) Module will cover various concepts such as simulation, games, exercises, discussions and brief talks. The Social Cognitive Career Theory (SCCT) and the Big Five Personality Model will form the theoretical basis for the development of the Career Readiness-Personality (CR-P) Module in helping to improve the career self-efficacy and Big Five personality.
Needs analysis The needs analysis is made to the relevant stakeholders, parties and target groups that will use the developed module. Participation in this needs analysis can be chosen at random and the information obtained will determine whether there is a need to develop a module or not.	Discuss with few universities to see the need for the Career Readiness-Personality (CR-P) Module to enhance students' career readiness and personalities.
Set the goals Objectives need to be realistic and measurable which would include the individuals involved, what to achieve, the level of mastery of skills to be learned and the time span required for the skills to be learned. The best objectives are behavioral objectives which are observable and measurable.	The objectives set for each activity are aimed at enhancing the career self- efficacy and shaping the personality of the students.
Select the content Identify, select and list the content that you want to include in the module that are appropriate and accurate. The content should meet the purpose or the objectives of the module and take into account the target group factor.	Two sub modules have been built, namely the career self-efficacy sub module and the Big Five personality sub module.
Select the strategy Focus on steps and strategies to ensure smooth implementation of the module.	Simulations, games, exercises, discussions and short talks

Select the logistics List the module materials that help facilitate the implementation of the module.	Stationeries, handouts, A4 papers, drawing papers and recycled materials.
Select the media Select media that can engage, stimulate and motivate participants. Can be made single, by combining two or various multimedia. Need to identify how the module will operate.	Power point, speaker, screen projector and projector. Conduct online quizzes like mentimeter and kahoot.
Compile the draft module The draft of the module is compiled upon the completion of the objective determination, content selection, activity determination, media selection and strategy selection stage.	Combine all activities into two sub modules.

Stage 2: Testing and Evaluation of the Module

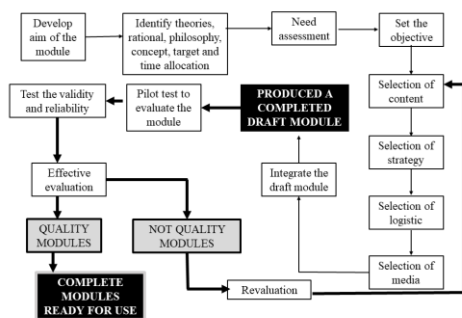| Steps	Descriptions
Conduct a pilot study To find out the information about the module such as language suitability and language level, possibilities of having grammatical errors and content and activity suitability.	The content of the Career Readiness-Personality (CR-P) Module has been evaluated by eight module experts, counselors and psychologists with a doctorate degree in philosophy. A pilot study was conducted on second year students from the same school, computer school. However, those who have participated in the pilot study will not be included in the actual study.
Evaluate the effectiveness The summative assessment is conducted to look at the effectiveness of the module as a whole. The summative assessment is also conducted to ensure that each stage of the module's development has been properly implemented by looking at the results of the implementation of the norm group and modules that are already in use. The formative assessment is intended to look at the module process and get the information on what needs to be changed in the module. A module is considered to have passed the standard process and is ready for use upon successful completion of all of the above. However, if the built-in module does not meet the set criteria, then the process needs to be repeated and usually starts at the content selection stage.	Depending on the validity and reliability of the Career Readiness-Personality (CR-P) Module

Figure 1: Sidek's Module Development Model (Source: (33)

II. JUSTIFICATIONS OF THE SELECTION OF SIDEK MODULE DEVELOPMENT MODEL

In this study, the researcher has selected the Sidek Module Development Model (33) for the development of the Career Readiness-Personality (CR-P) Module because of several reasons. Although there are some differences between the following models in terms of the procedures or approaches used in the development of these modules, they all have the same purpose, which is to produce quality modules through the process of scientific research (33).

For this study, the Russell Model (1974) was not selected based on the synthesis done by the researchers which is, this module is not updated according to the current situation as it was developed by Russell in 1974. In fact, according to Sidek Mohd Noah and Jamaludin Ahmad (2005), the model has to go through a testing process from time to time in order to meet the requirements. In addition, (34) suggests that each set of steps should be followed by the module developers in producing high quality modules to give the best result to the participants. However, the researchers such as (35–42) had only followed Russell's (1974) view on the five validity criteria of a module to determine the module's validity as the Russell's validity criteria are very crucial for testing the module development.

As for (32), this model was not choose because it does not emphasize on the module's validity and reliability before the actual study. This view was supported by (33) who suggest that before the actual study can be carried out, the validity and reliability of the need to determine first. In fact, based on the synthesis of the researchers, the (32) also did not emphasize on conducting a pilot study before implementing the module in the actual study. As highlighted by (33), pilot study is needed as to obtain the information on the quality of the module produced such as content suitability, activity suitability, language suitability and language level including grammar.

In this study, the researchers chose Sidek Module Development Model because of its advantages. The Sidek Module Development Model is the only model that that is considered as a comprehensive and integration model (33,40). The model is complete and has systematic and specific steps to develop module (40).

In fact, this model also emphasizes on pilot study to identify weaknesses and advantages of the module. The information obtained during pilot study is useful to improve the module (33). In addition, this model also recommends that studies to

be conducted by stakeholders or relevant parties to the target groups that will be using the module (33). In addition, several researchers have used the Sidek Module Development Model and they have proven in their studies that this model has high validity and reliability (35–42).

Furthermore, the Sidek Module Development Model also stresses on the validity and reliability of the module(33). The validity of this module's activities is reviewed by the module activity expert who will be given a set of completed module activities and the expert is required to provide comments, feedback and suggestions in the space provided (43). As for the reliability of the module, the development of the questionnaire items or the module's reliability questions based on the module's activity steps is useful to determine the module's reliability (34).

Besides that, the Sidek Module Development Model is chosen due to its structured stages, which helps the researchers to plan, design and organize the systematic steps and this model is considered complete as it can explain the development of the draft module to test the effectiveness of the module (44). In addition, the Sidek Module Development Model is easy to follow and is compatible with the features of a module (45). The Sidek Module Development Model also serves as the basis for writing, constructing, and measuring the validity and reliability of the built-in modules so that the quality of the module can be maintained and applied by other counselors (46).

In short, the Sidek Module Development Model has been used as a model for the development, validity, reliability and effectiveness of the Career Readiness-Personality (CR-P) Module based on the advantages of the model. Therefore, the researchers have chosen the Sidek Module Development Model as the module development model for this study.

III. THE CAREER READINESS-PERSONALITY (CR-P) MODULE

The CR-P module has two sub modules, namely the Career Self-Efficacy and Big Five Personality. The total of the activities are 30 activities. The career self-efficacy sub module is built based on five dimensions (16,17), namely: self-appraisal, occupational information, goal selection, planning and problem solving. While for the Big Five Personality sub module, it is built based on five traits which are openness to experience, conscientiousness, extraversion, agreeableness and neuroticism (18). The table 2 shows the activities carried out in the Career Readiness-Personality (CR-P) Module.

In the first sub module, students will engage in self-identifying activities, identifying their own work value, getting a sense of the actual work environment through sharing with representatives from the industry, identifying career goals, planning their career and increasing their confidence in career readiness. Students will follow activities to learn about their interests, skills and values related to career selection, career decision-making, strengths, skills and interest determination as well as career options exploration (47,48). Whereas for the second sub module, students will be exposed to improving their thinking skills, improving their ability to handle tasks well, improving communication and social skills,

improving collaboration and helping the group to identify ways to deal with stress. These skills will be an advantage for students in career preparation as they are one of the main employers' priorities in selecting workers (6). In fact, a study conducted by (49). has found that communication skills are the key factor when employers choosing their workers.

Table 2: The summary of the activities in the Career Readiness-Personality (CR-P) Sub-Modules

Sub Module	Dimensions	Activities
Sub Module 1 – Career Self-Efficacy	Self-Appraisal	Activity 1: Ice Breaking Activity 2: My Ideal Job Activity 3: My Lifestyle
	Occupational Information	Activity 4: In Person Activity 5: Career Exploration Activity 6: Career Path
	Goal Selection	Activity 7: My Career Goal Activity 8: Career Analysis Activity 9: This is My Job
	Planning	Activity 10: My Career Preparation Activity 11: Career Planning Activity 12: Yes, I'm Ready!
	Problem Solving	Activity 13: Wants Vs Needs Activity 14: Shine Your Way Activity 15: Which One?
Sub Module 2 – Big Five Personality	Openness to Experience	Activity 16: OCEAN Diagram Activity 17: My Personality – Openness to Experience Activity 18: My Creativity
	Conscientiousness	Activity 19: What is Conscientiousness? Activity 20: My Strategy Activity 21: Pride Mat
	Extraversion	Activity 22: Extraversion Trait Activity 23: Touch N Go Activity 24: Sentence Completion
	Agreeableness	Activity 25: My Trait - Agreeableness Activity 26: What is Important…Cooperation Activity 27: I'm OK!
	Neuroticism	Activity 28: Knowing Neuroticism Activity 29: DASS Test Activity 30: Stress and I

A. Content Validity Testing of CR-P Module

The results of the eight experts' evaluation found that the value of the content validity of the Career Readiness-Personality (CR-P) Module was 0.92 which is above the minimum level of 0.70. While for each category, the validity rating of the content was between 0.85 and 0.98. This shows that the value of the content validity of the Career Readiness-Personality (CR-P) Module is high according to (33) and also based on the recommendation by (50) and (51). The value shows a good validity of the content.

Table 3: Content validity of the Career Readiness-Personality Module (CR-P)

NO.	STATEMENT	Percentage (%)	Validity
1.	The content of the Career Readiness-Personality (CR-P) Module meets its target population.	93%	0.93
2.	The content of the Career Readiness-Personality (CR-P) Module can be successfully implemented.	93%	0.93
3.	The content of the Career Readiness-Personality (CR-P) Module is suitable with the time allocated.	85%	0.85
4.	The content of the Career Readiness-Personality (CR-P) Module can help students to improve their career self-efficacy.	98%	0.98
5.	The content of the Career Readiness-Personality (CR-P) Module can help students to develop their personality.	93%	0.93
	Overall	92%	0.92

IV. CONCLUSION

In conclusion, this study has developed a Career Readiness-Personality (CR-P) Module based on the Sidek Module Development Model with a high value of validity (33). The findings of this study show that the CR-P Module has a high validity since it used the Sidek Module Development Model which is similar to several previous studies (35–37,39,40,42,45,52). Therefore, this module is to be used for reliability testing and further experimental studies to test its effectiveness on university students. This module is expected to have a positive impact on university students as it has the capability to improve students' career self-efficacy, personalities and career readiness after completing their studies in university.

REFERENCES

1. Mahmud MI, Noah SM, Ahmad J. The Validity of Career Readiness Module- Cognitive Information Processing (CRM-CIP). 2017;(6).
2. Mohd Jelas Z, Mohd Salleh A, Azman N, Hamzah R, Jani R, Hamzah H, et al. Research report: Gender analysis in education. 2013.
3. Annette du Toit. An evaluation of a possible increase in self-knowledge through a career counselling intervention for grade 11 learners in previously disadvantaged schools. University of Stellenbosch; 2015.
4. Bailey C. Applying the Five-Factor Model of Personality to undergraduate career attitudes and beliefs; maturity, decision-making self-efficacy, and control. University of Missouri-Kansas City; 2002.
5. Judge TA, Higgins CA, Thoresen CJ, Barrick MR. The Big Five personality traits, general mental ability, and career success across the life span. Pers Psychol. 1999;52:621-621–52.
6. Norman H, Zainon R, Md Jenil SZ, Yahya R. Graduates personality that atttacts organization. J Bus Innov. 2017;2(1):53–61.
7. Rogers ME, Creed PA, Glendon AI. The role of personality in adolescent career planning and exploration : A social cognitive perspective. J Vocat Behav. 2008;73:132–42.
8. Esa A, Hassan A. I'm sure I can! In: UTM P, editor. Reaching for the star. Skudai; 2013.
9. Makhbul ZM, Yussof I, Awang AH. The criteria and graduates selection from the human resource management perspective. National Social Science Conference 2011.In: Persidangan Kebangsaan Sains Sosial 2011. 2011. p. 1–11.
10. Lent, Robert W., S.D. Brown GH. Career development from a social cognitive perspective. In: Career Choice and Development. San Francisco, CA: Jossey-Bas; 1996.
11. Patton, Wendy, McMahon M. Career development and systems theory: a new relationship. Belmont, CA, US: Thomson Brooks/Cole Publishing Co.; 1999.
12. Lent RW, Brown SD, Hackett G. Toward a Unifying Social Cognitive Thheory of Career and Academic Interest, Choice, and Performance. J Vocat Behav [Internet]. 1994;45(1):79–122. Available from: https://doi.org/10.1006/jvbe.1994.1027
13. Bandura A. Social foundations of thought and action: A social cognitive theory. Englewood Cliffs, NJ: Prentice Hall, Inc; 1986.

14. Bandura A. Self-efficacy: the exercise of control. New York: Freeman and Company; 1997.
15. Bandura A. Self efficacy: the exercise of control (7th Edition). New York: Freeman and Company; 2003.
16. Betz NE, Klein KL, Taylor KM. Evaluation of Short Form of the Career Decision-Making. J Career Assess. 1996;4(1):47–57.
17. Betz NE, Luzzo DA. Decision©Making Self-Efficacy Scale. 1996;413–28.
18. McCrae RR, Costa PT. Validation of the five-factor model of personality across instruments and observers. J Pers Soc Psychol [Internet]. 1987;52(1):81–90. Available from: http://doi.apa.org/getdoi.cfm?doi=10.1037/0022-3514.52.1.81
19. Barrick MR, Mount MK. The Big Five Personality Dimensions and Job Performance: A Meta-Analysis. Pers Psychol. 1991;44:1–26.
20. Hee OC. Validity and Reliability of the Big Five Personality Traits Scale in Malaysia. Int J Innov Appl Stud. 2014;5(4):309–15.
21. John OP, Srivastava S. The Big Five trait taxonomy: History, measurement, and theoretical perspectives. Handb Personal Theory Res. 1999;2(510):102–38.
22. Borgatta EF. The Structure of Personality Characteristics. 1964;8–17.
23. John O. The big five factor taxonomy: dimensions of personality in the natural language and in questionnaires. In: Handbook of personality: Theory and research. New York: Guilford Press; 1990.
24. Digman JM. Personality Structure: Emergence of the Five-Factor Model. Annu Rev Psychol. 1990 Jan;41(1):417–40.
25. Goldberg L. Language and individual differences: The search for universals in personality lexicons. In: LWheeler (Ed), Review of personality and social psychology. Beverly Hills, CA: SAGE; 1981. p. 141–65.
26. Norman WT. Toward an adequate taxonomy of personality attributes: Replicated factor structure in peer nomination personality ratings. J Abnorm Soc Psychol. 1963;66(6):574–83.
27. Deneve KM, Copper H. The Happy Personality : A Meta-Analysis of 137 Personality Traits and Subjective Well-Being. Psychol Bull. 1998;124(2):197–229.
28. John OP, Naumann LP, Soto CJ. Paradigm shift to the integrative Big Five Trait taxonomy. In: Handbook of personality: Theory and research. 2008.
29. Hogan R. Hogan Personality Inventory manual. Minneapolis:MN: National Computer Systems; 1986.
30. Mccrae RR, Costa PT. Personality Trait Structure as a Human Universal. Am Psychol. 1997;52(5):509–16.
31. Russell J. Modular instruction: A guide to the design, selection, utilization and evaluation of modular materials. United States of America: Publishing Company; 1974.
32. Alsagoff SA. The introduction of individual teaching with special focus on teaching modules and learning modules. J Pendidik dan Pendidik. 1981;3(1):46–57.
33. Noah SM, Ahmad J. Module development: How to develop training modules and academic modules. Serdang: Universiti Putra Malaysia; 2005.
34. Ahmad J. Module and the management of guidance groups. Serdang: Universiti Putra Malaysia; 2008.
35. Abdul Hanid Halit. The effects of career program on career development level among secondary school students in Dungun district, Terengganu, Malaysia. (Unpublished doctoral thesis). Universiti Putra Malaysia; 2007.
36. Abdul Jalil NI. Effects of rational emotive behavioural therapy module on irrational beliefs and job stress among university support staff. (Unpublished doctoral thesis). Universiti Teknologi Malaysia; 2017.
37. Ahmad J. The validity, reliability and effectiveness of the self-developed module on achievement motivation among secondary school students in Selangor (Unpublished doctoral thesis). Universiti Putra Malaysia; 2002.
38. Jaamat MA. Applying Ericson, Piaget and Super Theory in he development of Career Awareness Modules for Malaysian secondary school students. (Unpublished doctoral thesis). Universiti Putra Malaysia; 2010.
39. Madihie A, Noah SM. An application of the Sidek Module Development in REBT counseling intervention module design for orphans. Procedia - Soc Behav Sci [Internet]. 2013;84:1481–91. Available from: http://dx.doi.org/10.1016/j.sbspro.2013.06.777
40. Mahfar M, Noah SM, Senin AA. Development of Rational Emotive Education Module for Stress Intervention of Malaysian Boarding School Students. SAGE Open. 2019;(2):1–16.
41. Talib JA, Ariff AM, Salleh A. The effects of career intervention program on community college students' career development. Procedia - Soc Behav Sci [Internet]. 2010;7(2):629–34. Available from: http://dx.doi.org/10.1016/j.sbspro.2010.10.085
42. Mahmud, M. I. (2017). The effects of the Cognitive Information Processing Psycho-Education Career Program on the Dysfunctional Career Thoughts and Career Self-Efficacy of public university students. (Unpublished doctoral thesis). Universiti Putra Malaysia.
43. Ahmad J. Self motivation module. Kuala Lumpur: Dewan Bahasa dan Pustaka; 2015.
44. Mahmud MI, Noah SM, Ahmad J, Wan Ahmad WM. Modul Kesediaan Kerjaya Berdasarkan Teori Cognitive Information Processing (CIP). J Kurikulum Pengajaran Asia Pasifik. 2016;4(3):59–75.
45. Jasmi Abu Talib. The effects of career exploration modules on career planning skills, career self-efficacy and career maturity among community college students. (Unpublished doctoral thesis). Universiti Kebangsaan Malaysia; 2014.
46. Nawawi R, Madihie A, Yusoff SM, Said SNM, Sebli RSM. Development, validity and reliability of counseling intervention Self-Excellence Module based on 6 values PANS Transformation. 2016. p. 0–11.
47. Chiesa R, Massei F, Guglielmi D. Career Decision-Making Self-Efficacy Change in Italian High School Students Boosting Career Exploration : J Couns Dev. 2016;94:210–25.
48. Komarraju M, Swanson J, Nadler D. Increased Career Self-Efficacy Predicts College Students ' Motivation , and Course and Major Satisfaction. 2014;22(3):420–32.
49. Makhbul ZM, Yussof I, Awang AH. Analysis of employers' perceptions of higher education graduates. In National Social Science Conference 2011. Kuching: Universiti Malaysia Sarawak; 2011. p. 1–12.
50. Tuckman BW, Waheed MA. Evaluating an individualized science program for community college students. J Res Sci Teach. 1981;18(6):489–95.
51. Abu Bakar Nordin. Affective assessment. Kajang: Masa Enterprise; 1995.
52. Abdul Jalil NI, Mahfar M. The validity and reliability of rational emotive behavioural therapy module development for university support staff. Asian Soc Sci. 2016;12(2):129–37.

AUTHORS PROFILE

Nik Rafidah Nik Yusoff is presently a PhD candidate in the Universiti Teknologi Malaysia (UTM). She has completed her Master and Bachelor Degree in Guidance and Counseling in education, Universiti Teknologi Malaysia. She actively involved in career counseling activities and programs at Universiti Teknologi Malaysia.

Dr Mastura Mahfar is a senior lecturer in counselling in the School of Human Resource Development and Psychology at Universiti Teknologi Malaysia. She holds a PhD in Guidance and Counselling from Universiti Putra Malaysia. Her research interest includes stress intervention and workplace counselling. She teaches counselling and psychology courses and supervises master and doctoral projects within these fields.

Dr Muhammad Sukri Saud is currently working in the Department of Technical and Engineering, School of Education, Faculty of Human Sciences and Humanities, Universiti Teknologi Malaysia. He completed his PhD in Human Resource and Community Development from the Ohio State university, USA. He is actively involved in supervising PhD and Master students.