

The Effects of the CTRT Guidance Group Module on Career Exploration and Career Decision-Making Based on Students' Gender

Shukree Yusof¹ & Ahmad Jazimin Jusoh^{2*}

^{1,2}Faculty of Human Development, Sultan Idris Education University

Received: 5 March 2023
Revised: 10 March 2023
Accepted: 13 March 2023

Abstract

This study aimed to assess the effects of the CTRT Guidance Group Module based on the social cognitive career theory in Career Exploration and Decision-Making for Male and Female Students. The study used a quasi-experimental approach with a pre and post-test control group structure. The experimental design of the research included pre and post-testing. There were 90 students of secondary schools in Malaysia involved in this study. The Career Exploration Service-Revised (CESR) and Career Decision Difficulties Questionnaire-Reverse (CDDQR) questionnaires were used to gather data. Throughout the experimental procedure, the experimental group met weekly between 2.30 and 4.00 p.m. for eight weeks, whereas the control group did not. The study determined that the experimental group students had significantly higher mean scores on CESR and CDDQR questionnaires than the control group students. In light of the relevant research, the impact of the CTRT Guidance Group Module designed for Career Exploration and Career Decision-Making on Student Gender was discussed.

Keywords: Career decision making, control group, experimental group, module

(*) Corresponding Author: jazimin@fpm.upsi.edu.my

How to Cite: Yusof, S., & Jusoh, A. J. (2023). The Effects of the CTRT Guidance Group Module on Career Exploration and Career Decision-Making Based on Students' Gender. *International Journal of Education, Information Technology, and Others*, 6(2), 1-17. <https://doi.org/10.5281/zenodo.7797603>

INTRODUCTION

Career exploration is an essential element in making a career decision. It involves gathering information and finding out about job search, planning and career selection, discussing opportunities, learning specific abilities and skills, and acquiring an education for success. According to Brew and Ngman-Wara (2018), a systematic and comprehensive career exploration makes students start gathering information to help them make clear and successful career decisions. Career exploration involves three dimensions: personal focus and environment, the total number of information obtained through interview performance and getting a job offer, organisational involvement, socialisation and attitude towards a changing career (De-Vos et al., 2020; Musta'in & Handrianto, 2020). Internal motivation drives career exploration that is triggered and developed through natural anxiety, self-motivation and will.

Career information helps one understand, learn, and decide about a person's career. It can be obtained online from job information websites and school counsellors. The Malaysian Ministry of Education (2010) has introduced psychometric assessment for grades one to five for personality tests, career interest tests and multiple intelligence tests for student career development. However,



career development in this country needs to be intensified to meet the needs of the career education system. Career counsellors must transform from a conventional approach to a more comprehensive one with career planning involving family, community and other elements.

Decision-making is a complicated and individual process influenced by cognitive elements and a person's social structure. It must be done in an organised, formal, and planned manner that balances an organisation's career requirements with worker resources (Rita et al., 2021; Fahmi & Ali, 2022). An ideal career choice maker sees the necessity to make a career decision and is eager to accomplish and make proper judgments via a systematic procedure to obtain the conclusion that best matches their ambitions. Individuals having trouble making career selections must uncover and identify their areas of difficulty. The difficulty of picking a job choice is perceived differently depending on the circumstances. Sources that trigger difficulties are cognitive or affective, and intervention is needed to overcome them. Career development programs should be implemented to give students confidence in choosing a career (Falco & Steen, 2018; Hafnidar et al., 2021). Guidance and counselling services play an important role in achieving the country's vision through the optimal development of human capital at the school level.

The Malaysian Education Development Plan 2013-2025 aims to ensure enrollment at all levels, from pre-school to upper secondary, through academic or equivalent technical and vocational routes and to increase the participation of school leavers following educational paths such as universities, colleges, polytechnics, vocational institutions or structured skills programs (Ahad et al., 2021; Banseng et al., 2021). School counsellors' role is to assist high school students, so they feel satisfied in making decisions about education and career. High school guidance and counselling teachers have three tasks involving education and student career guidance: planning, implementation, supervision, evaluation of programs and activities, and planning, preparation, and disclosure of the career path of continuing studies to higher education institutions. The role of the guidance and counseling teacher is to help students plan their education and career choices (Supriyanto et al., 2020; Pernantah et al., 2022). However, the focus of the primary role has shifted to additional side tasks such as teaching academic subjects, being involved in disciplinary enforcement etc.

Career guidance and counseling services are becoming broader in their field and are important to understand a student's experience at the beginning of life (Wong & Yuen, 2019; Saputra et al., 2022). Students need accurate and up-to-date information about careers to make career decisions that meet the demands of national development and progress. Career exploration and making career decisions during school hours are suitable for students, but job opportunities are not the same as in the past century (Lent & Brown, 2020; Ramadhani et al., 2021). To build strong independence and understand the relationship between education and future opportunities, exploratory research and student career decision-making should be carried out to adapt the student to the career. Additionally, efforts to guide students about aspects of career education should be made to ensure that they pursue a career that aligns with their personality.

As a result, success and excellence in emotional components, psychomotor and soft skills, and academics are required to meet excellence and future advancement. In the contemporary context, success and greatness are a mixture of all these components that cannot be separated (Sabran, 2011). As a result, students should be prepared to face the difficulty of deciding on a profession, which is a regular activity that will affect their future lives as they face the complicated and hard world of work. This research aimed to assess the impact of the CTRT advisory group module on two dependent variables among secondary school students: career exploration and career decision-making. The influence of the CTRT advisory group module on career exploration and career decision-making was examined for the treatment and control groups depending on student gender in this research.

METHODOLOGY

Research Model

Using a quasi-experimental model with a pretest-posttest control group design, this study examined the effects of a career psychoeducation program built using social cognitive career theory on students' career choice self-efficacy and educational result expectations. Under the quasi-experimental paradigm, people are not chosen at random, and it is hard to keep out all factors that could affect the results (Reichardt, 2019). The study's design included a treatment group and a control group to compare results from different sets of participants. The pre-test was administered to both the treatment and control groups. Results from both the treatment and control groups' pre-test scores were collected. Then, the people in the treatment group went through therapy using the CTRT Guided Group Module, while the people in the control group kept using the old software and went about their daily lives (Couturier et al., 2021; Nengsih et al., 2022). The treatment and control groups were given a post-test after completing the therapy. The outcomes of the treatment and control groups are averaged together in the final test score. Participants in the treatment and control groups had their pre- and post-test scores analyzed to look for statistically significant changes. Results from comparing treatment and control group scores indicate that the CTRT Guidance Group Module significantly impacted the career development of treatment group students.

Study Group

The distinction between the treatment groups, KBK and KBB, centred on the participants in the treatment group who underwent CTRT Guided Group Module therapy. The CTRT Guidance Group Module needed knowledge of oneself, the world of reality, one's dreams, investigation of the environment, letting us do it, heart choices, and planning on my part. The treatment groups are given lectures, seminars, group training, models, simulations, and sketches, among other things (Handrianto & Salleh, 2019; Jamil & Isiaq, 2019). After getting instructions from the researcher, GBK uses the CTRT Guidance Group Module to finish the tasks. Participants in the GBK have the knowledge and credentials and are registered as counsellors in guidance and counselling. The subjects of control group that adheres to the school's established programs and activities. They are not treated in the same way as the CTRT Guidance Group Module's KK and KB groups. This group

participates in events and activities that the school has previously arranged. The technique of the school's plan for them is pretty typical, such as lecture activities, training, etc.

The first research stage occurs before the study (pre-test), and the second stage occurs after the study (post-test). The measurement from the pre-test provides information on the subject's actual circumstances, which is a benefit of this research design. Next, once the participants have received therapy, compare the post-test findings (Marsden & Torgerson, 2012). Measuring instruments are utilised at both levels for all courses. Before the study, the KBK, KBB, and K groups were given a pre-test. Quantitative data was collected through questionnaires, and a post-test was conducted on both participants as soon as the treatment program was complete, using the same measuring equipment that was used to collect quantitative data during the pre-test.

Table 1

Subject distribution of treatment group and control group

		KBK group (R1)			ENT Group (R2)	Control Group (KK)	Total (N)
Gender	R1a	R1b	R1c	R2	KK		
Males	5	5	5	15	15		45
Females	5	5	5	15	15		45
Total	10	10	10	30	30		90

As a result, topics are chosen to guarantee that only students who fit the criteria are included as subjects in either the treatment or control groups. Subject selection includes screening from the school, socioeconomics, academic performance, and achieving medium to low mean scores on the questionnaire. Then, we split the individuals into three groups according to their gender: a small treatment group, a big treatment group, and a control group.

The CTRT Guidance Group Module

Sidek and Jamaludin (2005) presented an integrated and complete module-building paradigm. This methodology is divided into two stages: developing a draft module and testing and assessing the module. The draft preparation stage consists of nine phases: creating the aim and consolidating the module draft. The second step involves testing the module using a pilot study to verify validity and reliability. Figure 1 depicts an examination of this module-building technique model.

combined effect's significance demonstrates that the variation in the individuals' mean scores is related to the experimental procedure (Büyüköztürk et al., 2014). The effect sizes were also estimated in conjunction with the ANCOVA and MANCOVA analyses in repeated measures, and eta squared (2) was used in this calculation, and 2 values were also included in the SPSS 24.0 analysis.

RESEARCH RESULTS

The following report provides the findings that may be deduced from the hypotheses that guided the research. In the first stage, the t-test was discussed, and then the ANOVA, ANCOVA, and MANCOVA analyses were given in that order.

Gender-based career exploration and decision-making after CTRT mentoring group module.

There was no significant different found on the pre-test for career exploration between the men and women in the treatment group, as well as between the treatment group and the control group. In the pre-test for career exploration, the male treatment group, the female treatment group, and the control group all performed similarly.

Table 2

The significant career exploration pre-test disparity across male, female, and control groups

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	3.328	2	1.664	7.799	.001
Within Groups	24.964	117	.213		
Total	28.293	119			

The study's findings indicate that the ANOVA table has a significant $p < .05$ (.001) value. H_0 was later turned down. Hence, there is a significant difference between the male treatment group, the female treatment group, and the control group in the pre-test mean reading of career exploration.

Male treatment group career exploration pre- and post-tests

A t-test was performed on the collected data in order to determine whether or not there was a statistically significant shift in the mean score for the male treatment group between the pre-test and the post-test.

Table 3. *Levene's Test for Equality of Variances and t-test for Means comparing the male treatment group's pre- and post-tests.*

	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	1.9	.18	-4.558	53	.000	-.60018	.13168	-.86429	-.33607

Equal variances not assumed	-4.521	49.764	.000	-.60018	.13274	-.86683	-.33353
-----------------------------------	--------	--------	------	---------	--------	---------	---------

According to the study's findings, if Sig value. (2-tailed) is more than $p < .05$ (.000), H_0 is rejected. Hence there is a substantial difference between the male treatment group's pre-test mean reading and the male treatment group's post-test mean reading for career exploration.

The female treatment group's career exploration pre- and post-tests differed significantly

In order to determine whether or not there was a statistically significant difference between the female treatment group's mean readings before and after the test, a t-test was carried out on the basis of the data.

Table 4. *Levene's Test for Equality of Variances and t-test for Means comparing the female treatment group's pre- and post-tests.*

	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	1.732	.193	-4.210	63	.000	-.42610	.10122	-.62837	-.22383
Equal variances not assumed			-4.248	62.371	.000	-.42610	.10031	-.62659	-.22561

According to the results of the research, if the Sig value (2-tailed) is more than $p < .05$ (.000), then H_0 is rejected. Hence, there is a substantial difference between the pre-test and post-test mean readings of the female treatment group for career exploration.

The significant career exploration post-test disparity between male, female, and control groups

The data were analyzed to determine whether or not there was a statistically significant difference between the mean post-career exploration test scores of the male treatment group, the female treatment group, and the control group. The test was conducted using a one-way analysis of variance (ANOVA).

Table 5. *The career exploration post-test one-way ANOVA differences between the male, female, and control groups*

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	16.802	2	8.401	31.566	.000
Within Groups	31.139	117	.266		
Total	47.941	119			

The study's results show that $p < .05$ on the ANOVA table is a significant value (.000). H_0 was turned down. So, there is a big difference between the treatment and control groups regarding the mean reading score after the career exploration test.

The significant career decision-making pre-test disparity between the male, female, and control groups (one-way ANOVA)

On the basis of the collected data, a one-way analysis of variance (ANOVA) was performed to determine whether or not the mean pre-test decision-making scores of the male treatment group, the female treatment group, and the control group were significantly different from one another.

Table 6. *The career decision-making pre-test differed significantly across the male, female, and control groups, according to a one-way ANOVA test*

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	9.777	2	4.888	9.755	.000
Within Groups	57.128	114	.501		
Total	66.904	116			

The research indicates that the $p < .05$ in the ANOVA table is statistically significant (.000). Then H_0 was turned down. Pre-test mean scores on career decisions varied significantly between male and female treatment groups and the control group.

The significant difference in male treatment group career decision-making pre- and post-test

During the pre-test and the post-test, the mean score of the male treatment group's career decision-making was compared using a t-test to see whether or not there was a significant difference between the two tests.

Table 7. *Levene's Test for Equality of Variances and t-test for Means between pre-test and post-test career decision-making of the female treatment group*

	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	.561	.457	-7.704	53	.000	-1.27968	.16611	-1.61285	-.94652
Equal variances not assumed			-7.732	52.886	.000	-1.27968	.16551	-1.61167	-.94770

According to the study's results, if the 2-tailed Sig value is more than $p < .05$ (.000), then the hypothesis is rejected. Hence, there is a substantial difference between the male treatment group's pre-test and post-test mean reading for determining career selections.

The significant difference in female treatment group career decision-making pre- and post-test

A t-test was performed on the collected data in order to determine whether or not there was a statistically significant difference in the mean reading between the pre-test and the post-test regarding the women in the treatment group's job choices.

Table 8. *Levene's Test for Equality of Variances and t-test for Means between pre-test and post-test career decision-making of the female treatment group*

	F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Equal variances assumed	1.301	.258	-8.986	63	.000	-1.46724	.16329	-1.79355	-1.14093
Equal variances not assumed			-8.924	59.611	.000	-1.46724	.16441	-1.79615	-1.13833

According to the study's findings, if Sig value. (2-tailed) is more than $p < .05$ (.000), H_0 is rejected. Therefore there is a substantial difference between the female treatment group's pre-test mean reading and the female treatment group's post-test mean reading to make a career selection.

The career decision-making post-test a significant difference between the male, female, and control groups (one-way ANOVA)

A one-way analysis of variance was carried out to determine whether or not there was a statistically significant difference between the mean post-decision-making test scores of the male treatment group, the female treatment group, and the control group.

Table 9. *One-way ANOVA results*

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	6.082	2	3.041	6.811	.002
Within Groups	52.234	117	.446		
Total	58.316	119			

The investigation findings indicate that the ANOVA table indicates a significant value of $p < .05$ (.002). H_0 was then rejected. Thus, when making a career selection, there is a substantial difference in the mean post-test scores of the male treatment group, the female treatment group, and the control group.

The CTRT guiding group module career exploration approach is based on significant pre- and post-test differences between male, female, and control groups (ANCOVA)

An analysis of covariance (ANCOVA) was performed on the data to determine whether or not there was a statistically significant difference between the male treatment group, the female treatment group, and the control group in terms of the measures that were obtained before and after the test (ANCOVA). The three groups that will be used in the preliminary testing are the control group, the treatment group for males, and the treatment group for women.

Table 10. *The CTRT guiding group module method to career exploration is based on substantial pre- and post-test differences between the male, female, and control groups (ANCOVA)*

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	36.735 ^a	3	12.245	151.328	.000	.801
Intercept	.754	1	.754	9.316	.003	.076
Pre CESR Gender	20.953	1	20.953	258.938	.000	.696
TEST3	4.061	2	2.030	25.090	.000	.308
Error	9.144	113	.081			
Total	1188.792	117				
Corrected Total	45.879	116				

Table test of the between-subject effect shows a significant value of $p < .05$, according to the study (.000). Then, H_0 was turned down. So, there is a big difference between the results of the pre-test and the results of the post-test for the male treatment group, the female treatment group, and the control group.

The CTRT guiding group module based career decisions on significant pre- and post-test data differences between male, female, and control groups (ANCOVA)

An analysis of covariance (ANCOVA) was carried out to determine whether or not there was a significant difference between the scores obtained by the male treatment group, the female treatment group, and the control group both before and after the test (ANCOVA). At the outset of the research project, the gender distribution of participants in the treatment, control, and male treatment groups served as the covariate.

Table 11. *The CTRT guiding group module bases career selections on substantial variations in pre- and post-test data between the male, female, and control groups (ANCOVA)*

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	18.787 ^a	3	6.262	18.855	.000	.334
Intercept	31.142	1	31.142	93.764	.000	.453
Pre CDDQR Gender	13.502	1	13.502	40.652	.000	.265
TEST4	12.436	2	6.218	18.722	.000	.249
Error	37.531	113	.332			
Total	3610.466	117				
Corrected Total	56.318	116				

A p-value of less than .05 was statistically significant in a table test of between-subject effect (.000). So, H_0 got turned down. As a result, the pre- and post-test results for career exploration show substantial differences between the male treatment group, the female treatment group, and the control group.

The CTRT guiding group module career exploration and decision-making is based on substantial pre-test and post-test differences between the male treatment group, female treatment group, and MANCOVA control group

According to the findings, a MANCOVA analysis was carried out to determine whether or not there was a significant disparity in the pre-test and post-test results for career exploration and career decision when comparing the male treatment group, the female treatment group, and the control group. The topics of choosing a profession and what to do when one has finished one were discussed by all three groups. The treatment groups for men, the treatment groups for women, and the control group will serve as the covariates for the pre-career exploration and decision-making processes.

Table 12. *MANCOVA results*

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	.301	23.880 ^b	2.000	111.000	.000	.301
	Wilks' Lambda	.699	23.880 ^b	2.000	111.000	.000	.301
	Hotelling's Trace	.430	23.880 ^b	2.000	111.000	.000	.301
	Roy's Largest Root	.430	23.880 ^b	2.000	111.000	.000	.301
MANCOVA Pre CESR Gender	Pillai's Trace	.707	134.130 ^b	2.000	111.000	.000	.707
	Wilks' Lambda	.293	134.130 ^b	2.000	111.000	.000	.707
	Hotelling's Trace	2.417	134.130 ^b	2.000	111.000	.000	.707
	Roy's Largest Root	2.417	134.130 ^b	2.000	111.000	.000	.707
MANCOVA Pre CDDQR Gender	Pillai's Trace	.292	22.845 ^b	2.000	111.000	.000	.292
	Wilks' Lambda	.708	22.845 ^b	2.000	111.000	.000	.292
	Hotelling's Trace	.412	22.845 ^b	2.000	111.000	.000	.292
	Roy's Largest Root	.412	22.845 ^b	2.000	111.000	.000	.292

A substantial value of $p < .05$ can be seen in the multivariate test table, notably for the Wilks' Lambda test (.000). H_0 was later turned down. Hence, there

is a significant difference in the pre-test and post-test assessments for career exploration and career choice between the male treatment group, the female treatment group, and the control group.

DISCUSSION

The first hypothesis was that students in the experimental group who participated in the CTRT Guidance Group Module would have higher mean scores on the post-test of career choice self-efficacy than students in the control group who did not participate in the program. According to the findings, students in the experimental group had considerably higher mean post-test scores on the career choice self-efficacy measure than those in the control group. Gender differences in the mean scores of students in the experimental and control groups were discovered.

A literature review found that experimental investigations based on social cognitive career theory confirmed the study's results. Pham et al. (2020) studied high school students to evaluate the effects of professional self-efficacy and expectancy outcomes on long-term aspirations and the moderating roles of autonomy and self-realization. According to the findings of this study, outcome expectancies have a greater influence on future aims than professional self-efficacy, which has been the focus of previous research on social cognitive career theory. Mental health concerns have a detrimental influence on the study's sample's ambitions. The study's flaws, as well as its research and therapeutic implications, were reviewed. Seker and Apri (2022) discovered that the mean scores of the experimental group students on the career decision self-efficacy and educational outcome expectations measures were significantly higher than those of the control group students in a second study with high school students. This difference was maintained in the follow-up measurements. Cardoso (2022) agrees with the research that life design groups are beneficial. Most participants in the focus groups believed that the intervention made them think about themselves and gave them a feeling of purpose. The findings highlight the importance of using life design tools in the classroom to help students think about themselves and, as a consequence, improve professionally.

College (Aka, 2020; Ince Aka & Tasar, 2020; Mohd Zain et al., 2021; Olmos-Gómez et al., 2019; Rahim et al., 2021) and high school (Abubakar, 2019; Sofyan et al., 2022; Winga, 2021) students generated results similar with high school students. These investigations discovered the CTRT Guidance Group Module, created based on the social cognitive career theory, in Career Exploration and Decision-Making on Student Gender. Contrary to the results of this research, career intervention programs for high school students (Stephen, 2010) and college students (Dos Santos, 2022) was ineffective in enhancing students' confidence in their capacity to make professional selections.

The study's second hypothesis was that students in the experimental group who watched Career Exploration and Career Decision-Making on Student Gender and learned about the social cognitive career theory would have higher educational expectations than students in the control group who did not watch the program. The post-test findings revealed a statistically significant difference in educational achievement expectancies favouring the experimental group.

The findings of the current investigation were supported by Sofyan et al. (2022). 's experimental examination of outcome expectancies. This research used data from an online Google Form questionnaire completed by 566 vocational education students in Indonesia who were selected as representatives. The data was then evaluated using structured equation modelling (SEM), route analysis, and bootstrapping. Self-efficacy was shown to significantly impact the relationship between digital literacy and assisting students in choosing the proper vocations. On the other hand, exposure to digital literacy, support, and counselling significantly influences one's perception of competence and the quality of one's job choices. On the other hand, peer groups have little impact on students' job choices. To boost students' optimism and the quality of their professional decision-making, all parts of vocational education must play a true role in increasing their self-efficacy, extending their digital literacy, monitoring their social environment interactions, and offering counselling assistance.

CONCLUSION AND RECOMMENDATION

According to the findings of this study, life-design techniques should be applied in schools to assist students in becoming more self-aware and growing professionally. How much students learn and utilize digital literacy, as well as how much they learn and use advice and counselling, significantly impacts their feeling of self-efficacy. According to the findings of this research, the CTRT Guidance Group Module for Career Exploration and Career Decision-Making on Student Gender can increase students' confidence and assist them in setting greater objectives. According to the research findings, the CTRT Guidance Group Module in Career Exploration and Decision Making on Student Gender is based on the social cognitive career theory. Even though the research contributes to the canon of relevant publications in the area, it does come with a few caveats. According to social cognitive career theory, one of these faults was that the CTRT Guidance Group Module placed too much emphasis on how a student's gender influences career exploration and decision-making. People who work in the field are evaluating the CTRT Guidance Group Module for Career Exploration and Decision-Making based on gender and grade. The social cognitive career theory underpins this curriculum.

We recommend that researchers do experimental studies to assess career intervention programs for various grade levels since there has not been much study done in Malaysia on high school samples based on social cognitive career theory. Moreover, because of the importance of self-efficacy and the outcomes of expectations in career development, experimental or mixed-method research on this issue is expected to impact the area and body of knowledge significantly. Another flaw in the research was that the follow-up tests were performed 12 weeks after the final test. Further follow-up assessments on the same or other samples may reveal the program's long-term benefits. The social cognitive theory created the CTRT Guidance Group Module on Career Exploration and Decision-Making by Gender of Students. Further study may be conducted to establish how this module impacts various socioeconomic groups and other factors (like not knowing what career to choose, being ready for a job, etc.).

The CTRT Guidance Group Module offers a study guide for the implementation process, fascinating subjects, and activities that students may conduct together based on research. This program might assist middle and high school psychologists and guidance counsellors in offering their pupils greater confidence in their abilities to choose a meaningful career path. They may work with groups of 15-20 students, assisting individuals having difficulty deciding on a professional route to stand out.

BIBLIOGRAPHY

- Abubakar, I. A. (2019). Career guidance services in public senior secondary schools in Kano, Nigeria. *Asian Journal of University Education*, 15(2), 27-35.
- Ahad, R., Mustafa, M. Z., Mohamad, S., Abdullah, N. H. S., & Nordin, M. N. (2021). Work attitude, organizational commitment and emotional intelligence of Malaysian vocational college teachers. *Journal of Technical Education and Training*, 13(1), 15-21.
- Aka, E. I. (2020). Investigating the change in career decision making self-efficacy levels of university students. *International Journal of Curriculum and Instruction*, 12(1), 310–326.
- Banseng, S., Sandai, R., Handrianto, C., & Rasool, S. (2021). Language of strata and expression in construction of sampi amongst iban community in malaysia. *International Journal of Education, Information Technology, and Others*, 4(3), 417-427. <https://doi.org/10.5281/zenodo.5169017>
- Brew, M., & Ngman-Wara, E. I. (2018). Influence of career self-efficacy on career exploration among senior high school students in relation to gender. *International Journal of Multidisciplinary and Current Research*, 6.
- Buyukozturk, S., Kilic-Cakmak, E., Akgun, O. E., Karadeniz, S., & Demirel, F. (2014). Research methods.
- Cardoso, P., Duarte, M. E., Pacheco, L., & Janeiro, I. N. (2022). Life design group-based intervention fostering vocational identity, career adaptability, and career decision-making self-efficacy. *Cypriot Journal of Educational Sciences*, 17(5), 1453-1467.
- Couturier, J., Pellegrini, D., Miller, C., Bhatnagar, N., Boachie, A., Bourret, K., ... & Webb, C. (2021). The covid-19 pandemic and eating disorders in children, adolescents, and emerging adults: Virtual care recommendations from the Canadian consensus panel during covid-19 and beyond. *Journal of Eating Disorders*, 9(1), 1-40.
- De-Vos, A., Van der Heijden, B. I., & Akkermans, J. (2020). Sustainable careers: Towards a conceptual model. *Journal of Vocational Behavior*, 117, 103196.
- Dos Santos, L. M. (2022). Female engineering students' motivations, career decisions, and decision-making processes: A social cognitive career and motivation theory. *Journal of Curriculum and Teaching*, 11(5), 264-274.
- Fahmi, I., & Ali, H. (2022). Determination of career planning and decision making: analysis of communication skills, motivation and experience: Literature review human resource management. *Dinasti International Journal of Management Science*, 3(5), 823-835.

- Falco, L. D., & Steen, S. (2018). Using school-based career development to support college and career readiness: An integrative review. *Journal of School-Based Counselling Policy and Evaluation*, 1(1), 51-67.
- Hafnidar, H., Harniati, I., Hailemariam, M., & Handrianto, C. (2021). Students self-regulation: An analysis of exploratory factors of self-regulation scale. *Spektrum: Jurnal Pendidikan Luar Sekolah (PLS)*, 9(2), 220-225. <https://doi.org/10.24036/spektrumpls.v9i2.112589>
- Handrianto, C. (2013). Penerapan pendekatan interaktif oleh tutor dalam pembelajaran paket c pada kelompok binuang sakti kota padang. *Spektrum: Jurnal Pendidikan Luar Sekolah (PLS)*, 1(2), 35-47. <https://doi.org/10.24036/spektrumpls.v1i2.2427>
- Handrianto, C., & Salleh, S. M. (2019). The environmental factors that affect students from outside java island to choose yogyakarta's bimbel. *International Journal of Environmental and Ecology Research*, 1(1), 27-32. Retrieved from: <http://www.environmentaljournal.in/article/view/5/1-1-14>
- Ince Aka, E., & Tasar, M. F. (2020). Prospective science teachers' views on career planning and their self-efficacy levels for career decision-making. *International Online Journal of Education and Teaching*, 7(3), 960-975.
- Jamil, M. G., & Isiaq, S. O. (2019). Teaching technology with technology: Approaches to bridging learning and teaching gaps in simulation-based programming education. *International Journal of Educational Technology in Higher Education*, 16, 1-21.
- Lent, R. W., & Brown, S. D. (2020). Career decision making, fast and slow: Toward an integrative model of intervention for sustainable career choice. *Journal of Vocational Behavior*, 120, 103448.
- Marsden, E., & Torgerson, C. J. (2012). Single group, pre-and post-test research designs: Some methodological concerns. *Oxford Review of Education*, 38(5), 583-616.
- Mohd Zaini, S. N., Md Rami, A. A., Mohamad Arsad, N., & Mohd Anuar, M. A. (2021). Relationship of academic performance and academic self-concept with career decision-making among UPM undergraduate students. *Asian Journal of University Education (AJUE)*, 7(2), 50-61.
- Musta'in, M., & Handrianto, C. (2020). Peranan pengurusan sekolah berasrama islam nurul hakim untuk membangunkan sumber manusia masyarakat sekitar. *Jurnal Penyelidikan Sains Sosial (JOSSR)*, 3(9), 114-123. Retrieved from: <http://www.jossr.com/PDF/JOSSR-2020-09-12-15.pdf>
- Nengsih, Y. K., Handrianto, C., Pernantah, P. S., Kenedi, A. K., & Tannoubi, A. (2022). The implementation of interactive learning strategy to formulating learning objectives in package c program. *Spektrum: Jurnal Pendidikan Luar Sekolah (PLS)*, 10(2), 311-317. <https://doi.org/10.24036/spektrumpls.v10i2.117215>
- Olmos-Gómez, M. D. C., Luque-Suárez, M., & Cuevas-Rincón, J. M. (2019). A confirmatory evaluation of an educational orientation tool for pre-university students. *Education Sciences*, 9(4), 285.
- Pernantah, P. S., Rizka, M., Handrianto, C., & Syaputra, E. (2022). Inovasi bahan ajar pendidikan IPS berbasis digital flipbook terintegrasi local wisdom dalam

- menunjang perkuliahan jarak jauh. *J-PIPS (Jurnal Pendidikan Ilmu Pengetahuan Sosial)*, 8(2), 136-145.
<https://doi.org/10.18860/jpips.v8i2.14886>
- Pham, Y. K., Hirano, K. A., Lindstrom, L., & DeGarmo, D. S. (2020). Future aspirations of young women with disabilities: An examination of social cognitive career theory. *Career Development and Transition for Exceptional Individuals*, 43(3), 169–179.
- Rahim, N. S. A., Jaafar, W. M. W., & Arsad, N. M. (2021). Career maturity and career decision-making self-efficacy as predictors of career adaptability among students in foundation program, universiti putra Malaysia. *Asian Journal of University Education*, 17(4), 464-477.
- Ramadhani, D., Kenedi, A. K., Helsa, Y., Handrianto, C., & Wardana, M. R. (2021). Mapping higher order thinking skills of prospective primary school teachers in facing society 5.0. *Al Ibtida: Jurnal Pendidikan Guru MI*, 8(2), 178-190.
<http://dx.doi.org/10.24235/al.ibtida.snj.v8i2.8794>
- Reichardt, C. S. (2019). *Quasi-experimentation: A guide to design and analysis*. Guilford Publications.
- Rita, Y., Muliana, I. L., & Handrianto, C. (2021). Taksonomi bloom dalam materi sistem persamaan linear pada program paket c di PKBM hang tuah pekanbaru. *JURING (Journal for Research in Mathematics Learning)*, 4(1), 69-80. <http://dx.doi.org/10.24014/juring.v4i1.12354>
- Sabran, M. S. (2001) Universiti pemacu pelajar holistik. *Kertas Kerja Pembentangan Seminar Peluang Pengajian Tinggi Peringkat Kebangsaan Tahun 2011*.
- Saputra, E., Handrianto, C., Pernantah, P. S., Ismaniar, I., & Shidiq, G. A. (2021). An evaluation of the course experience questionnaire in a malaysian context for quality improvement in teaching and learning. *Journal of Research, Policy & Practice of Teachers and Teacher Education*, 11(1), 1-12.
<https://doi.org/10.37134/jrppte.vol11.1.1.2021>
- Seker, G., & Çapri, B. (2022). The effect of the career psychoeducation program on the career decision self-efficacy and educational outcome expectations of eleventh-grade students. *International Journal of Progressive Education*, 18(2), 87-103.
- Sofyan, H., Mutohhari, F., & Nurtanto, M. (2022). Students' career decision-making during online learning: the mediating roles of self-efficacy in vocational education. *European Journal of Educational Research*, 11(3), 1669-1682.
- Stephen, A. (2010). *The effect of the Kuder Career Planning System used in a classroom setting on perceived career barriers, coping self-efficacy, career decidedness, and retention*. Iowa State University.
- Supriyanto, A., Hartini, S., Irdasari, W. N., Miftahul, A., Oktapiana, S., & Mumpuni, S. D. (2020). Teacher professional quality: Counselling services with technology in pandemic Covid-19. *Counsellia: Jurnal Bimbingan dan Konseling*, 10(2), 176-189.
- Winga, M. A. (2021). Career aspirations and decision making self efficacy: secondary school students' assessment based on KCSE exams in Kenya. *Educational Research and Reviews*, 16(4), 104–108.

Wong, L. P., & Yuen, M. (2019). Career guidance and counseling in secondary schools in Hong Kong: A historical overview. *Journal of Asia Pacific Counseling*, 9(1), 1-19.