# Real-Life Problems to Increase the Critical Analysis Thinking Among Novice Counselors in Humanistic Counseling Courses: Is It Effective?

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#### Abstract

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This study aims to determine the effectiveness of using real-life problems to improve novice counsellors' critical analytical thinking in humanistic counselling courses. The research method uses an experiment with a pretest-posttest control group design. The instrument used is a critical-analytical thinking scale. The research sample used a purposive sampling technique, which consisted of 84 students of the 2018 Guidance and Counseling Study Program Universitas Negeri Yogyakarta who took the Humanistic Counseling course. The samples were separated into experimental and control groups of 42 students. The pre-test and post-test data were analyzed using an independent sample t-test using SPSS Amos 25 software. The results show that the use of real-life problems in the Humanistic Counseling course was proven effective in improving students' critical-analytical thinking as novice counsellors. As a result, students are more stimulated to practice analyzing cases in various ways and can activate their cognitive complexity processes as novice counsellors.

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#### 1. Introduction

One of the graduate profiles in the Guidance and Counseling study program is to produce graduates who can provide counselling services effectively. To realize the achievements of graduates skilled in providing effective counseling services, the Guidance and Counseling study program must facilitate the growth of knowledge and counselling skills. This realization manifests in the facilitation of learning activities in theory and practice. Counselling learning is theoretically carried out in the early phase to foster relevant knowledge for Guidance and Counseling students before practical counselling learning. Practical facilitation of counselling learning aims to foster skills aspects in students.

Learning counselling theory provides Guidance and Counseling students to conceptualise their mindset, becoming a basis or model that can be used as a guide in providing counselling services (Giordano, Stare, & Clarke, 2015). Furthermore, the function of counselling learning, in theory, has several functions, including (1) a theory serves to synthesize a particular body of knowledge, (2) a theory serves to increase the understanding of a particular body of knowledge, (3) a theory provides the tool by which predictions may be made, and (4) a theory serve to encourage future research into the area that it stimulates further investigations into the particular phenomenon with which is concerned (Shertzer & Stone, 1980). Thus, theoretical learning is needed to equip students to acquire skills in providing relevant counselling services.

Irani et al.

Preparing students intensively to master theory is an effort to increase the achievement of counsellor qualifications in the academic realm. With proper mastery of theory, counsellors will be better able to provide counselling services based on the reflective values of practitioners and safe practitioners (Tan, 2003). Therefore, facilitation for mastering the theory of counselling approach at the Guidance and Counseling Study Program is significant. The real efforts to facilitate optimal student theory mastery in the Guidance and Counseling Study Program, Universitas Negeri Yogyakarta is grouping various types of counselling approaches according to their respective paradigms into several courses with a weight of 2 credits. The subject groups to facilitate the mastery of student counselling theory are divided into several counselling approach paradigms, namely: (1) Psychodynamic Counseling Approach, (2) Behavioristic Counseling Approach, (3) Cognitive Counseling Approach, (4) Humanistic Counseling Approach, and (5) Postmodern Counseling Approach.

Substantively, the implementation of counselling theory learning in the five courses above is carried out to achieve several indicators of student learning success which include: (1) students can build perspectives in viewing counselees as human beings following the counselling theory studied, (2) students can analyze problems relevant counselees based on the theoretical perspective of the counselling approach studied, (3) students find the core problem and the causal factors of the counselee's problematic condition according to the counselling approach being studied, and (4) students can develop plans for implementing counselling services according to the counsellee's problems with relevant counselling approach.

However, the reality that occurred based on the results of initial field studies carried out in the range of 2019 to 2020 in five counselling theory courses at the Guidance and Counseling Study Program, Universitas Negeri Yogyakarta, students experienced a downward trend in the four learning achievement indicators in the Humanistic Counseling Course (Suwarjo, Irani, & Sanyata, 2021). Based on descriptive qualitative analysis of field data findings, the decrease in student achievement on learning indicators for the Humanistic Counseling Course is due to several things, including: (1) students experience difficulties in being able to feel the counselee's feelings as unique human beings with all their abilities compared to the behavioristic approach which views humans are more mechanistic and easy to understand, (2) students find it challenging to build individual images without discussing the counselee's past experiences compared to a psychodynamic approach that traces the counselee's past to obtain the cause of a problem, (3) students tend to focus on the counselee's problems rather than focusing on the counselee as human because in the student's view counseling services are a means of alleviating problems, not for the counselee's self-development, and (4) students tend to understand the implementation of the humanistic counseling course in passing because the orientation is more on self-development and individual uniqueness, unlike the behavioristic counseling approach or cognitive counseling approach which is substantially more precise and easier to understand.

Furthermore, based on the analysis of data obtained from the final semester exams in five Counseling Approach Courses with the same problem scheme, it was found that the final score tends to show a low trend in the Humanistic Counseling Course compared to other Counseling Approach Courses. In fact, the types of Final Semester Exam questions used for the five Counseling Approach Courses are the same: conducting an exploratory analysis of the problem. Therefore, based on the initial field studies conducted, it can be concluded that students' difficulty in mastering theory in the humanistic counselling approach is due to the lack of critical-analytical thinking skills. This is certainly important for the humanistic counselling approach, considering that this paradigm greatly emphasises the uniqueness of individuals who are very diverse in understanding humans. Thus, the individual's ability to think critically in the analysis process is essential to become the basis for understanding humans in a more complex humanistic paradigm.

Critical-analysis thinking is the ability to adjust the thoughts, actions, and feelings to the circumstances that people find in themself (Zamroni, Muslihati, Lasan, & Hidayah, 2020). In research conducted by Gervey, Drout, and Wang (2009) states that the reality of human life will always experience change that also affects their point of view in dealing with the complexity of these changes, so there is a need to adjust and behave in the most functional way to achieve the goals of life. This is also a basic requirement in understanding humans in the various complexities of their respective viewpoints. Furthermore, based on research conducted by (Collins, Arthur, & Wong-Wylie, 2010) stated that the humanistic learning paradigm can restore critical-analytical thinking to students so that they can improve their creative thinking skills and reflective thinking skills.

For novice counsellors, critical analysis thinking is needed in counselling with a humanistic approach. Through critical analysis thinking, the novice counsellor is better to understand. Individuals with the ability in critical analysis thinking will be better to view the counselees as unique individuals with all the dynamics of their life, and they will be better to focus on the counselee's self-development than the counselee's problems. Counsellors are even more able to reflect on their various stimulations to the complexity of the uniqueness of the counselee in the counselling process. They can think holistically to recognize and realize his existence as a provider of counselling services for counselees who are human beings who must also be humanized (Coll, Doumas, Trotter, & Freeman, 2013). Thus, to optimally internalize students' conceptual and practical abilities in the humanistic counselling paradigm, critical analysis thinking is a requirement that must be possessed.

Several previous studies related to the advantages of critical-analysis thinking for counsellors conducted by (Muyan-Yılık & Demir, 2020) were able to increase the counsellor's point of view to think holistically and increase the sense of sensitivity in the counselling implementation process. Furthermore, research conducted by (Southward, Altenburger, Moss, Cregg, & Cheavens, 2018) states that individuals who have critical analysis thinking are much better at optimizing their performance as counsellors, have social sensitivity to the right person, and can see their clients as human beings with all the complexity of their uniqueness, and more capable of being empathetic, unconditional positive regard and congruent. Meanwhile, research conducted by (Miller, Chan, & Farmer, 2018) states that critical cognitive analysis will assist counselors in analyzing the counselee's understanding better with a view that is guided by the counselee's self-development compared to the context of the problems presented they brought.

Real-life problems use a problem-based learning model. However, in the implementation of counselling learning, it uses the problems of human life with all its dynamics. Various life problems are used as material to train and even improve prospective counsellors' ability to analyse and plan interventions in counselling services. Several studies related to using the problem study model to support them include (Miller et al., 2018), who investigated the effect of client problem types and counsellor gender on counselling response modes in a sample of 31 novice counsellors. Based on the study results, there was a significant relationship between prospective counsellors' responses to various individual problems analyzed by gender. The results show that counsellors use more informed responses on intrapersonal issues and more reflective responses on interpersonal issues. In general, there is a tendency for male counsellors to use a more minimal response than female counsellors' therapeutic responses. Other

studies have also shown that to improve the ability to design counselling interventions, using exercises to analyze fundamental problems in everyday life is a very appropriate method (Stiles & Snow, 1984).

Based on the explanation of several research results above, critical analysis thinking is an important aspect to be internalized in the counselling theory learning scheme, especially in the paradigm of the humanistic counselling approach. To train students' skills in improving critical analysis thinking, it is necessary to study various and in-depth individual life problems. So, to obtain this diversity, real problems are needed to be studied in-depth as a means of training to improve students' critical analysis thinking. Thus, this research was carried out to increase the effectiveness of counselling learning which was marked by the fulfilment of indicators of student learning achievement in the counselling course cluster. Furthermore, this research focuses on the extent to which students' critical analysis thinking in humanistic counselling courses can be improved by using real problems in their learning activities. The basis is that through real-life problems, students will get a variety of problems to be able to stimulate their critical analysis thinking so that the indicators for achieving the theoretical humanistic counselling approach lectures can be fulfilled.

# 2. Method

# 2.1. Research Design

This study uses a quantitative approach with a pretest-posttest control group design. In more detail, the research design is represented in Table 1. In Table 1, O1 is pre-test score before intervention X1; O2 is pre-test score before -; O3 is post-test score after intervention X1; O4 is post-test score after -; X1 is real life problems in person-centered therapy, counselling approach topic course; - is no research treatment; in humanistic counseling courses using conventional methods, namely analyzing cases made intentionally by lecturers and only in passing.

	Table 1. Research Design					
Group	Pre-test	Treatment	Post-test			
Experiment	01	X1	03			
		X2				
		X3				
Control	O2	-	O4			

The experimental group was given intervention in the form of using real-life problems to stimulate students to study and analyze these problems based on the humanistic counselling paradigm, which consists of several approaches that are used as lecture topics, namely: (a) Person-centered Therapy counselling approach, (b) Gestalt counselling approach, and (c) Reality counselling approach.

# 2.2. Research Subject

The total sample is 82 novice counsellors or students consisting of class A and B Guidance and Counseling Study Program, Faculty of Education, Universitas Negeri Yogyakarta. The sampling technique is based on purposive sampling, determining a group of subjects with specific criteria (Turner, 2020). The criteria used as requirements in determining the sample are students of the Guidance and Counseling Study Program taking the theory course of the humanistic counselling approach. The details of the subjects in this study are presented in Table 2.

Table 2. Research Samples Details					
Characteristics	Total	Percentage (%)			
Experiment Group (Class – A 2018)					
Female	34	81			
Male	8	19			
Total	42	100			
Control Group (Class – B 2018)					
Female	39	92			
Male	3	8			
Total	42	100			

#### 2.3. Instrument

There are two instruments used in this study, (a) data collection instruments using critical analysis thinking scale instruments and (b) intervention instruments or experimental guides, namely real-life problems in the Humanistic Counseling Course.

#### 2.3.1. Critical Analysis Thinking Scale

The critical analysis thinking scale instrument was developed by Ennis (1996) and modified by adding items to the construct of analytical thinking skills. Furthermore, the modified critical analysis thinking scale instrument was tested on 162 Guidance and Counseling students. The initial analysis of the critical analysis thinking scale instrument was carried out by conducting a construct validity test through exploratory factor analysis using SPSS 25. This analysis aims to assess the feasibility of each item by looking at the Kaiser-Meyer-Olkin (KMO)-Measure Sampling Adequacy (KMO) value. MSA). If the KMO-MSA value is 0.5 with p 0.05, then the analysis can be continued at the Cronbach Alpha reliability testing stage. The results of a series of feasibility tests obtained that the coefficient on 42 items was more than 0.7, namely 0.826, so it can be said that it has met the valid requirements and is suitable to be used to measure the critical analysis thinking scale in this study. The details of the blueprint of the critical analysis thinking scale are in Table 3.

	Table 3. Blueprint of Critical Analysis Thinking						
Variable	No.	Sub-variable	Indicator	Item			
				Total			
Critical	1.	Give a simple explanation	Analyze arguments	6			
Analysis			Ensuring logical argument	5			
Thinking in	2.	Construct the basic skills	Using credible sources	5			
Humanistic			Projecting in a mind map	5			
Counseling	3.	Draw conclusion	Induce and consider the results of induction	5			
Course	4.	Give advance explanation	Defining terms	4			
			Considering assumptions	4			
	5.	Make strategy and tactics	Make decision	4			
			Considering the decision value	4			
		Total Ite	ems	42			

# 2.3.2. Instrument of Intervention (Experiment Guide)

The instrument of intervention used in this study is a guideline for implementing real-life problems in humanistic counselling courses. The guideline is designed in lecture activities for one semester with 16 meetings. The instrument of intervention has been developed based on the development step of (Gall,

Gall, & Borg, 2006) by modifying the development step. The guide was developed up to the plenary field-testing stage for experts. In detail, the modification of the development of the instrument of intervention can be explained as follows: (1) the planning stage is carried out by compiling the details of the activities to be carried out in the humanistic counselling course by elaborating on the expected learning outcomes, (2) developing an instrument of intervention which is divided into several stages. For the three topics of the humanistic counselling approach described in Table 4, (3) conducting trials of the instrument of intervention to 3 Guidance and Counseling experts, and (4) making improvements based on the results of expert tests. The test results at the field plenary testing stage were analyzed using an inter rather agreement that includes accuracy, feasibility, simplicity, and clarity. Obtained an average value of 3.64. Thus, it can be known that the instrument of intervention is acceptable and can be used to test the improvement of critical analysis thinking through the implementation of real-life problems in this study.

Session	Counselling	Topic	Detail Activities		
	Approach				
1	Explanation of the	course description an intr	oduction to the humanistic counselling paradigm.		
2		The concept of	A group of students presented as material presenters.		
		Person-Centered	Further discussion to deepen the basic concepts of		
		Counseling	Person-Centered Therapy		
3		Counselling	Lecturers provide feedback.		
		procedures and			
		techniques			
4	Person-Centered	Implementation Real	All students describe their real-life problems in the		
	Therapy	Life Problem: Daily	daily life journal format. The lecturer appointed three		
	Counseling	life journal I	students to explain their daily life journals. In contrast,		
5	Approach	Implementation Real	other students discussed the description of the		
	rippiouen	Life Problem: Daily	problems in the daily life journal based on the		
		life journal II	perspective of Person-Centered Therapy counselling		
			theory.		
6		Simulation of Person-	The presenter group hybrid simulates counselling with		
		Centered Counseling	a Person-Centered Therapy approach. Other students		
			observe and examine the suitability of the simulated		
			steps and counselling techniques.		
7		The concept of	A group of students presented as material presenters.		
		Gestalt Counseling	Further discussion to deepen the basic concepts of		
8		Counselling	Gestalt Counselling		
		procedures and	Lecturers provide feedback.		
		techniques			
9		Implementation Real	All students describe their real-life problems in the		
	Gestalt	Life Problem: Daily	daily life journal format. The lecturer appointed three		
	Counseling	life journal III	students to explain their daily life journals. In contrast,		
10	Approach	Implementation Real	other students discussed the description of the		
		Life Problem: Daily	problems in the daily life journal based on the		
		life journal IV	perspective of Gestalt counselling theory.		
11		Simulation of Gestalt	The presenter group hybrid simulates counselling with		
		Counseling	a Gestalt approach. Other students observe and		
			examine the suitability of the simulated steps and		
			counselling techniques.		

# Table 4. Details of Activities Implementation of Real Life Problems in Humanistic Counseling Course to Increase Critical Analysis Thinking Novice Counselor for Experiment

Session	Counselling Approach	Торіс	Detail Activities
12		The concept of	A group of students presented as material presenters.
		Reality Counseling	Further discussion to deepen the basic concepts of
13		Counselling	Reality Counseling.
		procedures and	Lecturers provide feedback.
		techniques	
14		Implementation Real	All students describe their real-life problems in the
	Reality	Life Problem: Daily	daily life journal format. The lecturer appointed three
	Counseling	life journal V	students to explain their daily life journals. In contrast,
15	Approach	Implementation Real	other students discussed the description of the
		Life Problem: Daily	problems in the daily life journal based on the
		life journal VI	perspective of Reality counselling theory.
16		Simulation of Reality	The presenter group hybrid simulates counselling with
		Counseling	a Reality approach. Other students observe and
			examine the suitability of the simulated steps and
			counselling techniques.

# 2.4. Data Collection Procedures and Analysis Techniques

Data was collected by pre-test and post-test using critical analysis thinking scale instruments in the experimental and control groups as primary data. Meanwhile, secondary data is obtained from the final semester exam scores to show the index of student learning outcomes in the humanistic counselling course. For primary data analysis, non-parametrically used t statistics to test the mean difference (t-test for independent sample) after the experimental and control groups were given the intervention. Before doing the t-test, the normality and homogeneity tests were carried out. Furthermore, to determine the effectiveness of using real-life problems to improve critical analysis thinking, the data were analyzed by t-test. Overall data analysis activities were carried out using the SPSS for the windows version 25 program.

#### 3. Results

#### 3.1. Results of Pre-test Data Descriptive Analysis

The implementation of the pre-test measures the critical analysis thinking index of students in the experimental group and the control group in the humanistic counselling course before being given an intervention. The results of the recapitulation are presented in Table 5.

Table 5. Descriptive Data of The Pretest Results							
N Minimum Maximum Mean Std. Deviation							
Pre-test experiment group	42	56	86	74.8122	8.33524		
Pre-test control group	42	56	80	73.2614	8.24452		
Valid N	42						

# 3.2. Results of Normality and Homogeneity Test from Pre-Test Data

This study conducted a normality test to ensure that the data obtained came from a population with normal distribution. This is important because all calculations assume a normal distribution. After testing for normality and ensuring that it is typically distributed, statistical analysis can be continued. In contrast, the homogeneity test was carried out to ensure that the data from the two sample groups (experimental group and control group) came from populations with the same variance. Thus, the homogeneity test can show that the data in this study have the same characteristics. The analysis technique for the normality test on the pre-test data uses the Kolmogorov-Smirnov and Shapiro-Wilk statistics. Based on the normality test results, the results show that the pre-test score has a good significance value for the experimental group and the control group with a score of .000 which means that the data is not normally distributed, so the statistical test cannot be applied. Therefore, the Mann-Whitney test was used. The normality test results on the pre-test results for the experimental and control groups are presented in Table 6.

	Table 6. Normality Test on the Pre-test Data Results							
	Crown	Kolmogor	Shapiro-Wilk					
Test	Group	Statistic	df	Sig.	Statistic	df	Sig.	
Test	Pre-test experiment	.324	42	.000	.842	42	.000	
	Pre-test control	.318	42	.000	.846	42	.000	

# 3.3. Results of Man-Whitney and Wilcoxon Statistics Test from Pre-Test Data

The Mann-Whitney test on the pre-test data was carried out because the normality test results showed that the data were not normally distributed. The Mann-Whitney test is used to test the significance of the differences between the two populations and serves as an alternative to using the ttest when the parametric conditions are not met. The results of the Mann-Whitney test on the pre-test data are presented in Table 7.

Table 7. Mann- whitney fest on the Fre-test Data Results				
Test	Score			
Mann-Whitney U	436.300			
Wilcoxon W	864.300			
Z	186			
Asymhlm.Sig. (2-tailed)	.886			

# Table 7 Mann Whitney Test on the Dro test Date Desults

Based on the results of the Mann-Whitney test on the pre-test data, the significance level (2-tailed) is 0.886. Therefore, it can be known that there is no difference in pre-test scores between the experimental group and the control group.

#### 3.4. Results of Post-test Data Descriptive Analysis

After being given intervention in the form of implementing real-life problems in a humanistic counselling course in 16 sessions, measurements were carried out to determine the level of critical analytical thinking in the post-test. The post-test results for the experimental and control group are presented in Table 8.

Table 8. Descriptive Data of The Post-test Results						
	Ν	Minimum	Maximum	Mean	Std. Deviation	
Post-test experiment group	42	72	94	88.3452	5.89761	
Post-test control group	42	62	83	78.8761	6.00346	
Valid N	42					

# 3.5. Results of Normality and Homogeneity test from Post-Test Data

The data from the post-test scores were tested for normality and homogeneity indexes using Kolmogorov-Smirnov and Shapiro-Wilk statistics. Based on the test, the results show that the post-test data scores have a good sign for the experimental group and the control group with the acquisition of a coefficient of .000, which indicates that the data is not normally distributed. Therefore, the data needs to be tested with Mann-Whitney because it cannot be continued with the statistical analysis of the t-test. The description of the results of the normality test and the homogeneity of the post-test data is presented in Table 9.

	Table 9. North	lanty rest on th	ie rosi-u	est Data N	esuits		
	Crown	Kolmogor	Shapiro-Wilk				
Teat	Group	Statistic	df	Sig. Statistic df Sig	Sig.		
1 651	Post-test experiment	.318	42	.000	.798	42	.000
	Post-test control	.288	42	.000	.809	42	.000

### Table 9. Normality Test on the Post-test Data Results

# 3.6. Results of Man-Whitney and Wilcoxon Statistics Test from Post-Test Data

The results of the normality and homogeneity tests on the post-test data were not normally distributed, so for the next step of the analysis to see the significance of the differences in post-test data from the two populations (experiment group and control group), Mann-Whitney analysis was performed. The results of the analysis are presented in Table 10.

Table 10. Mann-Whitney Test on the Post-test Data Results				
Test	Score			
Mann-Whitney U	288.300			
Wilcoxon W	752.200			
Z	-3.134			
Asymhlm.Sig. (2-tailed)	.015			

Based on Table 10, the results of the Mann-Whitney analysis on the post-test score data produced a significance coefficient (2-tailed) of 0.015, so it can be stated that there is a significant increase in students' critical analysis thinking between the experimental group and the control group. Therefore, it can be stated that humanistic counselling courses using real-life problems are more effective than using conventional models.

# 3.7. The Results of Real-Life Problem Effectiveness to Increase Critical Analysis Thinking in Humanistic Counseling Course

In the effectiveness test, the results obtained that the implementation of real-life problems in the humanistic counselling course between the experimental and control groups is presented Table 11. Based on the data presented in Table 11, the difference between the pre-test and post-test scores was obtained with the paired sample statistical t-test. The analysis results showed a significance level of .000 for the t-statistic (2-tailed). Therefore, it can be interpreted that there is a significant score between the experimental and control groups in applying real-life problems to improve critical analysis thinking in the humanistic counselling approach

		Table 11.	Effectivenes Pa	s Test bet aired Diffe	ween the Pre rences	e-test and Post-	-test		<b>G!</b>
		Mean	Std.	Std. Error	95% Confie of The l	Confidence Interval f The Difference		df	Sig. (2- tailad)
			Deviation	Deviation — Mean		Upper			talled)
Pair 1	Pre-test – Post-test	- 21.0019 2	8.22167	2.00447	-22.91125	-15.98991	- 15.886	4 2	.000

### 4. Discussion

# 4.1. Feasibility of Real-Life Problems to Increase Critical Analysis Thinking in Humanistic Counseling Approach Course

Based on expert tests that have been carried out on the Real-Life Problem Guidelines to improve critical analysis thinking used in this experimental study, the average score was 3.64. The average score is obtained from the indicators of accuracy, usability, ease, and clarity of testing. Thus, the Real-Life Problem Guidelines to improve Critical Analysis Thinking in the Humanistic Counseling Approach is feasible (91%) to be used in this experimental research. Furthermore, the use of real-life problems has a high possibility of being used to improve critical analysis thinking in various learning approaches to counselling or other counselling practice classes.

Based on the study by Jurdak (2016), using fundamental problems in learning can improve students' ability to project a phenomenon to proceed to the process of collecting data or information, exploring and identifying, and ending in efforts to find solutions. This is a process that accommodates the growth of critical analytical thinking skills in students (Reed, 1998). Meanwhile, based on the study by Hanafi, Hidayah, Atmoko, Ramli, and Triyono (2022), the use of real problems in learning activities can stimulate students to be more motivated in understanding the concepts of the problems discussed in the learning process. Furthermore, real problems can also accommodate the learning process where students make reasoned decisions and defend them (Grasha, 1996).

Meanwhile, based on a study by Altun Yalçin, Yalçin, Said Akar, and Özturan Sağirli (2017) shows that the use of real-life problems in the learning process has the following advantages: (1) students are free to construct the thinking process for the learning content discussed, (2) there is flexibility in carrying out the study, it makes students tend to make the learning process enjoyable and satisfying, (3) it encourages greater student understanding, and (4) develops students' lifelong learning skills. The same thing was also obtained from the results of a study by Scholl and Hansen (2018), which stated the advantages of using real problems in learning activities were (1) the development of long-term student knowledge retention, (2) developing of students transferable skills, (3) improving students teamwork and interpersonal skills, (4) stimulating students' ability to discover new knowledge, (5) developing students' ability to think critically and their ability to adapt to new knowledge, and (6) facilitate students in conceptualizing a phenomenon to the possibility of further steps in solving problems.

Using real-life problem implementation guidelines to improve critical analysis thinking in the humanistic counselling approach leads to instructional targets, steps, details of learning activities and the formation of learning situations (Slavin, 2019). On the other hand, according to Bloor (2019). Learning guides are guidelines that are used as a reference to obtain information and instructions in carrying out learning activities. The real-life problem implementation guide makes it easy for counsellor educators to

improve critical analysis thinking novice counsellors in humanistic counselling courses by focusing on the nurturant effect process. The real-life problem implementation guide for humanistic counselling courses provides a structure that makes it easier for counsellor educators to obtain more concrete information, references, instructions, and demands in carrying out learning activities. Based on the discussion above, it can be stated that the guidelines for implementing real-life problems are appropriate to be used to improve critical analysis thinking for novice counselors in the humanistic counseling approach.

# 4.2. Effectiveness of the Real-Life Problems to Increase Critical Analysis Thinking in Humanistic Counseling Course

Based on the data obtained from the pre-test scores of the control group and the experiment group, it was analyzed using the Kolmogorov-Smirnov and Shapiro-Wilk statistical calculation techniques to obtain the coefficient of the normality of the score distribution. The results indicate that the pre-test score has a good significance value for the experimental and control groups, namely .000, which means that the data is not normally distributed, so the t-test statistic cannot be applied. Based on this situation, the Mann-Whitney test procedure was used.

Furthermore, on the post-test score data for the experimental group and the control group, both obtained a coefficient of .000. This indicates that the data is not normally distributed, and the data need to be tested with Mann Whitney because it cannot be continued with the t-test statistical analysis. This situation is according to the results of a study by (MacFarland & Yates, 2016) which states that if the test results show that the data is not normally distributed, the analysis process can be continued with the Mann Whitney and Wilcoxon Rank Sum Test techniques to find the average difference in the pre-test and post-test scores. The same thing is also expressed by Peers (1996), who states that any data obtained in research entitled education and psychology must be tested for normality because all parametric statistical calculations have the assumption of normality of distribution so that if the data in the normality test is not normally distributed, the analytical approach shifted in the nonparametric direction.

Referring to Mann-Whitney's analysis of the experimental and control groups' post-test scores, the score is 0.015. The score is lower than the coefficient of 0.05, which means that there is a significant difference in the level of critical analysis thinking between the experimental group and the control group after the intervention in the form of internalizing life problems in the humanistic counselling course was given. Furthermore, it can be said that the learning model that uses the internalization of real-life problems can improve students' critical analysis thinking. In the process of counselling courses, prospective counsellors are prepared to understand various counselee situations with various backgrounds of life problems they carry. This shows that counselling learning involves a process of metacognitive activation of prospective counsellors to see various real-life problems. Analyzing various kinds of life problems obtained from various people would be better able to improve the counsellor's metacognitive process (Holder, Whetstone, & Sheinker, 2008). Thus, the counsellor will be better able to find essential values in each counselee's problem. Furthermore, the counsellor can diagnose the counselee more precisely (Wilkinson, 2011).

Based on the experimental findings above, some advantages of using real-life problems to improve critical analysis thinking in novice counselors in humanistic counselling courses can be described. First, the use of real-life problems provides practice-based learning. Second, the internalization of real-life problems is the same concept as the problem-based learning model. Third, real problems are presented to bring up learning outcomes in the cognitive process of students, which consist of: (1) actively seeking

relevant information, (2) dealing with unstructured information patterns and novelty concepts, (3) increasing a proactive attitude in assignments, (4) increasing motivation to solve problems which is a manifestation of the need for understanding and explanation, (5) goal-oriented thinking, and (6) the need for generative, flexible, analytical, critical and synthetic thinking (Tan, 2003).

Based on the study by Tan (2003), the use of real problems in learning activities can increase the capacity of students' cognitive processes in various aspects. These aspects may include functions such as the following: (1) configuring for system and holistic thinking, (2) relearning, (3) rethinking, (4) observing and making use of observations, (5) recognizing and making patterns, (6) generating fresh arguments and explanations, (7) analogizing, (8) connecting, (9) imaging, (10) abstracting, (11) empathizing, (12) transforming information, and (13) playing with ideas. These things can support prospective counsellors' active thinking process in exploring their counselee's problems and thinking processes.

Second, implementing the types of real-life problems analyzed by the novice counsellor in each cycle is different, so it provides real experience to encourage critical and analytical thinking skills. As students in the humanistic counselling approach, Novice counsellors carry out the problem analysis process through three cycles. This is done to facilitate the thought process and increase the knowledge of the novice counsellor in exploring the condition of the counselee who is having problems. Thus, novice counsellors can better plan interventions appropriately (Hidayah, Ramli, & Hanafi, 2017). This is supported by a meta-analysis study by Albanese and Mitchell (1993), which states that using real problems helps students construct their knowledge and reasoning skills compared to using traditional learning models, namely studying materials only. The same thing is also expressed by Delisle (1997), who states that using real problems is effective for improving student learning processes, making learning strategies relevant for heterogeneous classes where students with various abilities can improve their collaborative aspects in solving problems.

Third, using real-life problems is an effort to activate the metacognitive process of prospective counsellors. Learning by internalizing real-life problems as the main learning process tends to have great potential to assist prospective counsellors' metacognitive thinking and acting when counselling. This is because counselling is a professional job that, in its expert service, does not only apply a set of fixed procedures but always thinks by mobilizing the academic abilities it controls to provide counselling services (Radjah, 2012). Research conducted by Wilkinson (2011) describes that novice counselling intervention plans they provide. This is due to their low ability to activate metacognitive processes, so understanding the actual condition of the counsellee's problems is not appropriate Wilkinson (2011). This should be anticipated, considering that counselling situations can be complex, problematic, and confusing. In these situations, novice counsellors must utilize metacognitive processes to frame complex counselling situations (Jordan & Kelly, 2004). Thus, novice counsellors will find it easier to critically analyze the condition and emotional fluctuations of the counselee in the ongoing counselling process (Schneider, 2011).

Fourth, the use of real-life problems in the counselling course becomes a facility to stimulate the complex thinking process of prospective counsellors whose output is in the form of critical analysis thinking of novice counsellors. The real problem-based learning process is a real effort to use Bloom's Taxonomy in instructional activities (Granello, 2001). This is done to optimize the learning process and assessment tool in determining the level of individual cognitive complexity. In learning activities in the

humanistic counselling course, novice counsellors receive learning facilitation that improves knowledge, understanding, application, analysis, synthesis, and evaluation. This refers to the cognitive complexity process (Wilkinson, 2011). Based on a study conducted by Welfare and Borders (2010), it is stated that prospective counsellors can utilize the process of having a complex cognitive process by using their experience as a framework for analyzing and describing the situation of the counselee they serve. Thus, using real-life problems in the learning process is also a means to stimulate the complex thought processes of prospective counsellors. Counsellors with complex thinking skills can recognize various related characteristics of the counselee and can conceptualize more relevantly unclear and contradictory clinical cases (Granello, 2010; Welfare & Borders, 2010).

Operationally, the implications of the findings of this study can be integrated into a problem-based learning model to increase the theoretical understanding of novice counsellors toward counselling approaches. Research problem-based learning can provide students with a more structured learning experience (Carone & Burker, 2007; Hall, 2003). This follows the aim of the Humanistic Counseling course, which is to increase students' exploration and analysis skills in viewing various problems in the counselee's life. Thus, students as prospective counselors are better able to plan selection strategies, techniques and even counseling more precisely. Furthermore, to master the differences in each counseling approach, it can be done by analyzing various kinds of problems in human life. Emphasizing on real-life problems which have dynamic and varied values, gives a better effect on improving critical analysis thinking of novice counselors are more prepared to carry out practical counseling.

# 5. Conclusion

Based on the acquisition and discussion in the previous section, several things can be concluded in this study. First, internalization of real-life problems in the humanistic counselling approach is proven to be effective in increasing the critical analysis thinking skills of novice counsellors, as evidenced by the results of the Mann-Whitney statistical analysis on the post-test scores between the control group and the experimental group (0.015) and on the t-test analysis. In addition, a paired sample (0.000) indicates a significant difference in the mean scores of the two groups. Second, real-life problems in humanistic counselling courses can stimulate novice counselors to practice analyzing various cases and activate metacognitive processes and cognitive complexity, thereby increasing the ability to analyze various complex and contradictory counselee issues critically.

# Author Contributions

All authors have equal contributions to the paper. All the authors have read and approved the final manuscript.

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# Masalah Hidup Riil untuk Meningkatkan Kemampuan Berpikir Kritis-Analitis Calon Konselor dalam Perkuliahan Konseling Pendekatan Humanistik: Apakah Efektif?

#### Kata kunci

Masalah hidup riil; Berpikir kritis-analitis; Calon konselor; Pembelajaran konseling humanistik

#### Abstrak

Penelitian ini bertujuan untuk mengetahui keefektifan penggunaan masalah hidup riil untuk meningkatkan pemikiran kritis-analitis calon konselor pada mata kuliah konseling humanistik. Metode penelitian yang digunakna ialah eksperimen dengan rancangan pretest-posttest control group design. Instrumen yang digunakan ialah skala berpikir kritis-analitis. Sampel penelitian menggunakan teknik purposive sampling, yakni terdiri dari 84 mahasiswa angkatan 2018 Prodi Bimbingan dan Konseling Universitas Negeri Yogyakarta yang menempuh mata kuliah Konseling Humanistik. Sampel dipisah pada kelompok eksperimen dan kelompok kontrol yang masing-masing berjumlah 42 mahasiswa. Data pre-test dan post-test dianalisis menggunakan independent sample t-test dengan menggunakan software SPSS Amos 25. Hasil penelitian menunjukkan bahwa, penggunaan masalah hidup riil pada mata kuliah konseling humanistik terbukti efektif meningkatkan pemikiran kritis-analitis mahasiswa calon konselor. Mahasiswa lebih terstimulasi untuk berlatih menganalisis kasus secara beragam serta mampu mengaktivasi proses kompleksitas kognitifnya sebagai calon konselor.