

## Reducing Academic Stress Using Online Counseling based on Acceptance and Commitment Therapy

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### Abstract

Students' stress management is needed in order to obtain optimum achievement. This study was focused on reducing academic stress through online counseling based on an acceptance and commitment therapy approach. 20 Vocational High School (SMK) students were chosen using purposive sampling technique and divided into four groups for pretest, posttest, and follow up. Their data were collected using the Perception of Academic Stress Scale and examined in mixed manova test to compare the effectiveness of the treatment in experimental and control groups. Findings showed that the online counseling based on an acceptance and commitment therapy approach was able to reduce students' academic stress. In addition, the combination of two kinds of counseling, namely synchronous and asynchronous gave the most optimum results. Also, this study further explored the interaction between counselors and counselees in web-based ACT intervention to reduce academic stress.

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## INTRODUCTION

School education can determine students' future lives. To realize this goal, the implementation of education refers to Bloom's taxonomy domains, namely cognitive, affective, and psychomotor (Darmawan & Sujoko, 2013). However, students often experience stress during their education. Stress can hinder the cognitive and affective aspects of students' development and academic achievement (Cortiella, 2016).

The newest phenomenon cited from an online platform (kompas.com) mentions that many students in Singapore favorite schools experienced academic stress indicated by the request made by those favorites school to the Singapore Institute of Mental Health. Indonesia Children Protection Commission or KPAI reports a number of parents complain about school online tasks given to their children. It was found that online tasks even caused students stress because they got them every day (republika.co.id).

Guidance and counseling exists at school to assist students in gaining optimum achievement, especially in learning. It is done by helping students looking for solutions for their school problems, and academic stress is one of which.

Academic stress greatly contributes to negative impact. It academically results in poor performance at school, affects students' concentration, and productivity. In line with this, one study concludes academic stress is related to students' daily lives, and this anxiety can affect their academic achievement (Sharma & Pandey, 2017). However, each students is expected to manage his stress well so that he will remain consistent in showing good academic performance.

Some previous studies indicate that acceptance and commitment therapy intervention has succeeded in increasing awareness and reducing experience withdrawal, reducing stress and fatigue (Frogeli, et al., 2016). Moreover, this technique may prevent stress worsening in education. Apart from that, there needs to be more studies to validate this finding.

In recent years, acceptance and commitment therapy has been implemented using an online medium and succeeded (Lappalainen et al., 2015) on university students (Räsänen et al., 2016) and adolescents (Puolakanaho et al., 2019). ACT emphasizes the functions of thoughts, feeling, memory, and sensations that are feared or avoided, and provides various training aiming at changing the effects of those behaviors. This training, especially the one in form of audio and video recordings, is truly suitable for web-based intervention.

A study done by (Puolakanaho et al., 2019) regarding the use of web-based acceptance and commitment therapy results small, but significant reduction of stress. However, their study did not explore the interaction between counselors and counselees during the motivation and the effects of the total and various trainings. Thus, it will be fruitful to be clarified in the future studies.

Therefore, the present study attempted to further explore the interaction and relationship between counselors and counselees in web-based ACT intervention in the way it reduces students' academic stress. It was done by comparing the guided and non-guided intervention by the researchers in each assignment and the combination of both. These were done to get deeper information about the interactions between counselors and counselees.

## METHODS

The subjects of this study were 20 eleventh graders of SMKN 1 Gantar. They were grouped into four (5 for each), namely experimental group 1 which received the web-based acceptance and commitment therapy online counseling (asynchronous), experimental group 2 received the web-based acceptance and commitment therapy face-to-face counseling (synchronous), experimental group 3 received the web-based acceptance and commitment therapy online counseling with face-to-face meeting in session 1 and 5 (synchronous and asynchronous), and group 4 (control group).

Students' academic stress were collected using an academic stress scale developed by Bedewi & Gabriel (2015) with the title of the Perception of Academic Stress Scale which consists of 18 items. This instrument was filled out by choosing 5 scaling choices for each statement item (1=strongly disagree; 5=strongly agree). Further, the reliability score of this scale gained the alpha cronbach coefficient value of 0.70.

This experimental study implemented multiple group pretest multiple post test, in which there are two or more groups receive different treatments. In carrying out this design, the subjects were chosen using random assignment, or putting individuals randomly in different groups that are still in the same experiment.

Some steps were taken in this study, including (1) giving pretest by distributing the academic stress scale to select the subjects of the study; (2) once the data were collected, 20 students who had high academic stress were chosen and grouped into four; (3) intervention processes were given in 5 sessions for each group with session time lag of 5-6 days; (4) giving posttest after the interventions were given to examine the effectiveness of the treatments or web program-based ACT; (5) conducting follow up after 2 weeks to reassess the effectiveness.

In each session, the researchers gave brief orientation of online intervention, building relation and creating fun atmosphere, learning to accept thoughts, feelings, and memories as what they are, learning to be present (here and now), applying ACT-based skills in daily life. These activities were given in form of videos, comic strips, slides, texts, giving posttest, and follow up.

All data were analyzed using SPSS version 24.00. Prior to testing the hypotheses, the researchers conducted a normality test using one sample Kalmogorov-Smirnov test and mixed manova to see any differences in terms of effectiveness.

## RESULTS AND DISCUSSION

Based on the data description, the initial academic stress of students in the experimental group 1 which received the web-based acceptance and commitment therapy online counseling was ( $M = 68.00$ ,  $SD = 3.00$ ), experimental group 2 which received the web-based acceptance and commitment therapy face-to-face counseling was ( $M = 68.20$ ,  $SD = 0.83$ ), experimental group 3 which received the web-based acceptance and commitment therapy online counseling with face-to-face meeting in week 1 and 5 was ( $M = 68.00$ ,  $SD = 3.00$ ), and group 4 as the control group was ( $M=67.20$ ,  $SD=3.27$ ). All these data belonged to high academic stress and are presented in the following table 1.

**Table 1.** Data Description

Ke	Stres Akademik					
	T1		T2		T3	
1	M	SD	M	SD	M	SD
1	68.0	3.0	52.0	7.5	49.8	7.6
	0	0	0	8	0	9
2	68.2	.83	38.4	2.4	39.2	2.4
	0		0	0	0	8
3	66.0	1.7	38.4	2.4	40.6	1.5
	0	3	0	0	0	1
4	67.2	3.2	66.6	2.0	62.6	4.2
	0	7	0	7	0	1

According to the results of main effect analysis, the group counseling with web-based acceptance and commitment therapy reduced academic stress ( $F(1.408, 22.529) = 95.273$ ,  $p < 0.01$ ).

**Table 2.** Mixed Mancova Result

Efek	df	F	P
Time	1.408, 22.529	95.273	<0.0 1
Group	3.16	13.631	<0.0 1
Time*Group	4.224, 22.529	12.306	<0.0 1

**Tabel 3.** Pairwise Comparisons

Group	T	MD	SE	F
1	T1-T2	16.00*	3.209	27.955
	T1-T3	18.20*	3.121	
	T2-T3	2.20	1.068	
2	T1-T2	29.80*	1.393	423.941
	T1-T3	29.00*	1.342	
	T2-T3	-.800	.242	
3	T1-T2	10.600	5.913	13.276
	T1-T3	25.400*	.510	
	T2-T3	14.800	6.192	
4	T1-T2	.600	.678	17.698
	T1-T3	4.600	.600	
	T2-T3	4.000	1.140	

\*. The mean difference is significant at the .05.level

The results presented in table 4 showed significant differences. In the experimental group 1, differences can be seen in the results of pretest and posttest (MD = 16.00\*, SE= 3.209), pretest and follow up (MD = 18.20\*, SE= 3.121), and posttest and follow up (MD = 2.20\*, SE= 1.068). In the experimental group 2, differences in the pretest and posttest up was (MD = 29.80\*, SE= 1.393), pretest and follow up was (MD = 29.00\*, SE= 1.342), and posttest and follow up was (MD = -.800\*, SE= .242). In the experimental group 3, differences in the pretest and follow up was (MD = 10.600\*, SE= 5.913), pretest and follow up was (MD = 25.400\*, SE= .510), and posttest and follow up was (MD = 14.800\*, SE= 6.192). In the control group, differences in the pretest and posttest was (MD = .600\*, SE= .678), pretest and follow up was (MD = 4.600\*, SE= .600), and posttest and follow up was (MD = 4.000\*, SE= 1.140).

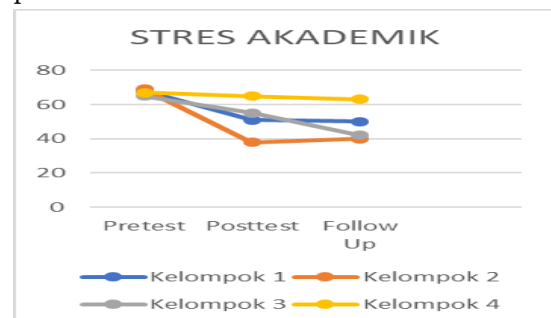
**Table 5.** Group Comparisons

Group	MD	SE
1-2	8.00	2.53
1-3	2.60	3.49
1-4	-8.86	2.82
2-3	-8.00	2.53
2-4	-5.40	2.56
3-4	-11.46*	2.84

\*. The mean difference is significant at the .05.level

In terms of t test as presented in table 5, significant differences among the results of the treatments in each group can be seen. First, the difference between group 1 which received web-based ACT online counseling with no face-to-face meeting and group 2 which received web-based ACT online counseling with face-to-face meeting in each week was (MD=8.00, SE=2.53). Second, the difference between group 1 which received web-based ACT online counseling with no face-to-face meeting and group 3 which received web-based ACT online counseling with face-to-face meeting in meeting 1 and 5 was (MD=2.60, SE=3.49). Third, the difference between group 1 which received web-based ACT online counseling with no face-to-face meeting and group 4 as the control group was (MD=8.00, SE=2.53). Fourth, the difference between group 2 which received web-based ACT online counseling with face-to-face meeting in every week and group 3 which received web-based ACT online counseling with face-to-face meeting in meeting 1 and 5 was (MD=-8.00, SE=2.53). Fifth, the difference between group 2 which received web-based ACT online counseling with face-to-face meeting every week and group 4 as the control group was (MD=-5.40, SE=2.56). Sixth, the difference between group 3 which received web-based ACT online counseling with face-to-face meeting in session 1 and 5 and group 4 as the control group was (MD=-11.46\*, SE=1.53).

To see the direction of academic stress reduction in each group, the following figure is presented.

**Figure 1.** Academic Stress Reduction

The findings of this study indicated significant differences between the results of the treatments given in several situations, namely synchronous, asynchronous, and guided counseling in reducing academic stress. It appeared that the guided counseling was the best, followed by offline counseling. This result can be obtained by referring to the typical characteristics of online and offline counseling.

What was found in this study supports a previous study that individuals who use both synchronous and asynchronous online discussion are likely to complete course activities (Ohlund Chong Yu & Jannasch-pennell Samuel Digangi, 2000). Apparently, the combination of synchronous and asynchronous online discussion maximizes personal involvement in learning. If students are willing to engage in both modes, this can provide increased opportunities for meaningful counseling to occur.

In online counseling, synchronous and asynchronous modes have their own strengths. Some students prefer the asynchronous one because it enables them to reflect on what to say and gives them spare time to develop beneficial responses. The reflection time is a benefit for students who have limited time in class which later causes them to have lack of contribution in direct discussion. This study has also proved that there was a positive therapeutic relationship between the counselors and the counselees even though this counseling was asynchronous. A study on positive and stable therapeutic relationships built over the internet shows that alliances can be built early in treatment and intense contact with the therapist with the client (Knaevelsrud & Maercker, 2007).

In these experimental groups the method was synchronous. Synchronous chat is widely used for a counselor training. It involves online group conversation which happens in real time. The counselors can use text, verbal or both modes of chat (Osborn, 2009). The findings of a previous study shows that synchronous counseling is effective and efficient to use for counseling programs (Koo, 2019).

In research in this experimental group, counselors seemed to find it easier to build a

therapeutic relationship. An additional benefit to online process groups is the ability for students to track in real time when and how they physically respond to group stimuli (Wathen et al., 2021). Nonverbal cues, such as facial expressions, body language, and eye contact can be easily observed via the front-facing webcam, which is helpful for recognizing internal reactions or transfer backs to specific topics, interactions, or distractions in the group.

## CONCLUSION

The findings indicate that the synchronous and asynchronous counseling has unique functions and strengths, and combining those two forms of counseling can results in optimum outcomes. Moreover, making a combination is the best way to suit everyone uniqueness.

For further researchers, developing more innovative and interesting media in the provision of counseling becomes the recommendation of this study. It aims to support the implementation of synchronous and asynchronous online counseling.

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