Editors
Dr. Murat İskender
Dr. Mustafa Koç
Dr. Hüseyin Çalışkan
Dr. Orhan Kocaman
Dr. Mustafa Bayrakçı

PES

www.ijpes.com

International Journal of Psychology and Educational Studies

PES
International Journal of
Psychology and
Educational Studies

Motivation and Self-Regulated Learning: A Multivariate Multilevel Analysis

Wondimu Ahmed

University of Akron, Ohio, USA

ARTICLE INFO

ABSTRACT

This study investigated the relationship between motivation and self-regulated learning (SRL) in a nationally representative sample of 5245, 15-year-old students in the USA. A multivariate multilevel analysis was conducted to examine the role of three motivational variables (self-efficacy, intrinsic value & instrumental value) in predicting three SRL strategies (memorization, elaboration & control). The results showed that compared to self-efficacy, intrinsic value and instrumental value of math were stronger predictors of memorization, elaboration and control strategies. None of the motivational variables had a stronger effect on one strategy than the other. The findings suggest that the development of self-regulatory skills in math can be greatly enhanced by helping students develop positive value of and realistic expectancy for success in math.

1. Introduction

Self-regulated learning is one of key determinants of academic achievement. Evidence shows that students who regulate their learning perform better in school than those who do not engage in such self-regulation (Dent & Koenka, 2016; Hattie & Donoghue, 2016). Despite the importance of self-regulated learning (SRL), a large number of students do not engage in self-regulation of learning (Pintrich & Zusho, 2002; Zimmerman, 2008). Why do some students engage in SRL while others fail to do so? This question has garnered a great deal of attention among researchers. Consequently, there has been an increased emphasis on examining the motivational precursors of SRL (see Schunk & Zimmermann, 2008; Zimmerman, 2011). In the past two decades, a number of studies have investigated the roles of a variety of motivational variables (e.g., attributions, goal orientations, self-efficacy, intrinsic motivation, achievement value) in SRL (for an overview see Zimmerman & Schunk, 2008). SRL is a complex concept that comprises multiple components that are correlated (Sitzsmann & Ely, 2011; Zimmerman & Martinez-Pons, 1990). Despite the multifaceted nature of SRL, previous studies that examined the associations between motivation and SRL utilized a univariate approach. Such an approach makes it difficult to simultaneously investigate differential effects of motivation on multiple SRL components. Thus, our knowledge of how different motivational variables influence various components of SRL is limited. To fill this gap, this study examined the differential effects of self-efficacy, intrinsic value and instrumental value on three SRL strategies in mathematics in a nationally representative sample of 15-year old students in the USA based on data obtained from the 2003 Program for International Student Assessment (PISA).

---
[1] Corresponding author's address: The LeBron James Family Foundation College of Education, University of Akron, Ohio, USA
Telephone: (330) 972-6771
e-mail: wahmed@uakron.edu
http://dx.doi.org/10.17220/ijpes.2017.03.001

1.1. Self-regulated Learning

Self-regulated learning refers to "the self-directive processes through which learners transform their mental abilities into academic skills" (Zimmerman & Labuhn, 2012, p. 399). SRL involves setting realistic learning goals, selecting effective learning strategies, monitoring and evaluating one's progress towards goals. An important aspect of SRL is the use of various learning strategies to regulate one's learning (Bjork, Dunlosky & Kornell, 2013; Dent & Koenka, 2016; Pintrich, 1999; Zimmernam, 2008). Although a variety of learning strategies exist (Bjork, et al., 2013; Hattie & Donoghue, 2016) the current study focuses on three of these strategies: memorization (rehearsal), elaboration and control (meta-cognitive) strategies. These categories of strategies are considered to be important components of SRL (Artlet, Baumert, Julius-McElvany & Peschar, 2003; Pintrich, 1999). Both memorization and elaboration strategies are commonly combined together to form cognitive strategies (Pintrich, 1999). Memorization strategies involve repeating to-be-learned information over and over again. Memorization strategies help in familiarizing the learner with the concepts and terms of to-be-learned material. Some specific techniques of memorization strategy include highlighting and underlining text. Although memorization strategies do not mirror deeper level of processing, they help learners to focus and select relevant information (Bjork et al., 2013; Pintrich, 1999; Weinstein & Mayer, 1986; Weinstein, Acee &Jung, 2011). Elaboration strategies reflect deeper level processing of to-be-learned material. Elaborative strategies such as paraphrasing and making an analogy help in connecting to-be-learned information with prior knowledge (Weinstein, et al., 2011).

Control or meta-cognitive strategies refer to planning, monitoring and regulation of cognition and behavior (e.g., Corno, 2005; Pintrich, 1999; Zimmerman & Labuhn, 2012). Self-regulated learners plan a course of action by setting goals, monitoring their progress towards the goals and evaluating their performance relative to the goals (Zimmerman & Labuhn, 2012). Planning involves, among others, setting goals for studying to-be-learned information, identifying learning strategies as well as task analysis. These activities help in activating prior knowledge thereby making processing of information easier. The next logical step after planning is performing. During performance, monitoring of learning becomes a crucial phase of SRL. During monitoring, self-regulated learners check their understanding against self-set standards by using variety of technique such as self-testing and self-explanations (Bjork et al., 2013). An important role of monitoring is making learners vigilant to obstacles to reaching self-set goals thereby triggering evaluation of strategies in terms of effectiveness (Bjork et al., 2013; Zimmerman, 2011). Overall, although the uses of both cognitive and meta-cognitive strategies have been proven to be important for learning and achievement (Dent & Koenka, 2016; Pintrich, 1999; Zimmernam, 2008), many students fail to use such strategies (Bjork et al., 2013).

1.2. Motivation and self-regulated learning

Motivation is considered to play a vital role in initiating and sustaining self-regulated learning (Boekaerts, 2010 Pinrich, 1999; Zimmerman, 2011). Self-regulated learning requires paying attention to the learning process, making tough choices and putting forth increased effort to learn (Zimmerman, 2011). Thus, understanding the role of motivational processes in self-regulated learning is important (Zimmerman & Schunk, 2008). Although a number of previous studies have examined how SRL is linked with various motivational constructs (e.g., achievement goals, and attributions) [see Schunk & Zimmerman, 2008]. The current study focuses on self-efficacy and task value. These motivational variables are hypothesized to facilitate and sustain students' engagement in self-regulated learning (Pintrich, 1999; Wigfield & Claudia, 2008; Zimmerman, 2011). In order to engage in self-regulated learning, students should believe that they have the confidence in their ability to learn (e.g., self-efficacy) and that there is a good reason or purpose to do so (e.g., task value) (Pintrich, 1999). Self-efficacy refers to judgment of personal capability to organize and execute a course of action in order to attain self-set goals (Bandura, 1997). Self-efficacy is one of the most extensively studied motivational constructs in relation to self-regulation (Zimmerman, 2008). In general, studies have shown that students who feel competent about their capability are more likely to use SRL strategies than those who doubt about their confidence (e.g. Pajares, 2008; Pintrich & De Groot, 1990; Wolters & Pintrich, 1998). However, the relationship between self-efficacy and specific learning strategies has not always been consistent. For example, whereas studies using college samples consistently show significant positive

association between self-efficacy and use of memorization strategies (see Crede & Philips, 2012), those using adolescent samples did not find significant associations between the two variables (Beger & Karabenick, 2011). One potential argument is that self-efficacy is a stronger predictor of deeper level strategies such as elaboration than superficial strategies such as memorization (Sins, van Joolingen, Savelsbergh & van Hout-Wolters, 2008). With regard to elaboration and control strategies, regardless of the strength of the associations, studies show that self-efficacy beliefs are positively correlated with both strategies (see Pajares, 2008; Pintrich, 1999). Most of these studies also examined the relative effects of task value.

According to Eccles (2009) task value reflects students' reasons for engagement in a task. Students may value tasks or domains such as math, out of enjoyment (i.e., intrinsic value) or for its instrumental roles to achieve future goals (i.e., instrumental/utility value) or for its consistency with one's identity (i.e., attainment value). The current study considers only intrinsic value and instrumental value due to availability of such variables in PISA 2003 data. While intrinsic value is similar to interest (Renninger, 2010) and intrinsic motivation (Ryan & Deci, 2000), instrumental value is akin to identified form of extrinsic motivation (Ryan & Deci, 2000). Although there are some subtle differences between these different labels, because of their intellectual roots, they refer to whether individuals engage in a task for intrinsic or instrumental reasons (Wigfield & Cambria, 2010). According to Wigfield, Hoa and Klauda (2008) the two components of value are hypothesized to have differential effects on self-regulation. Wigfield et al (2008) argued that if students pursue an activity as means to an end (i.e., instrumental value) they would not fully engage in self-regulation as when they "value the activity intrinsically" (p189). An implication of this hypothesis is that students who value a domain for instrumental reasons are likely to use superficial strategies such as memorization than deep and meta-cognitive strategies. Although this may be true, much of the research in support of the role of task value comes from studies that examined composite task value (i.e., composite of intrinsic, utility and attainment values) Thus, we do not know the differential roles of intrinsic vs. instrumental value in predicting SRL strategies (Wigfield, et al., 2008). Nevertheless, a number of studies that investigated the relations between composite task value and various self-regulation strategies found that student who attach value to a task are more likely to report the use of cognitive and meta-cognitive strategies learning strategies in that particular task (e.g., Berger & Karabenick, 2011; Pintrich & DeGroot, 1990; Wolters & Pintrich, 1998). Although Berger and Karabenick's (2011) did not investigate the relative effects of task value across the memorization, elaboration and control; the correlations reported in their study (based on wave I data) show that task value has stronger association with elaboration and control (meta-cognition) than memorization. This suggests that intrinsic value and utility value may be differentially associated with the three strategies considered in the current study.

Although the studies outlined above have increased our knowledge base on the role of motivation in SRL, a number of issues remain unresolved. First, although SRL is conceptualized as multivariate concept, previous research has mainly focused on different SRL strategies separately. SRL strategies are moderately correlated (Sitzsmann & Ely, 2011; Zimmerman & Martinez-Pons, 1990) and ignoring this fact leads to imprecise parameter estimates and type I error (Snijder & Bosker, 2012). Second, although there is evidence on the correlations between motivational variables and SRL strategies (Berger & Karabenick, 2011; Wolters & Pintrich, 1998), we know little about the relative effects of different motivational variables on different learning strategies in the same model. Moreover, because previous research has focused on composite measures of task value, we know little about the differential role of the components of task value (i.e., intrinsic value & instrumental value) in SRL (Wigfield et al., 2008). Understanding whether motivation effects differ by the SRL strategies has both practical and theoretical significance. Practically, interventions that target a specific SRL strategy might choose to focus on a specific motivational variable. Theoretically, knowledge of differential motivational effects on SRL outcomes helps in refining SRL theories in such a way that modifications to the motivational aspects of the theories can be made.

1.3. The Present Study

This study addressed three general research questions: (1) Do the three motivational variables predict the three SRL strategies after controlling for correlations among SRL strategies. Based on previous univaraite outcome studies (e.g., Berger & Karabenick, 2011) and strong theoretical positions on the role of motivation in SRL (Pintrich, 1999), the expectations were: self-efficacy, intrinsic value and instrumental value would positively predict memorization, elaboration and control strategies. (2) Do the effects of the motivational variables differ

by SRL strategies (e.g., Do the effects of self-efficacy differ across memorization, elaboration and control?). Although there is no strong empirical basis to form specific hypotheses, based on the correlations reported in Berger and Karabenick (2011), self-efficacy would be stronger predictor of elaboration and control than it is of memorization. Based on Wigfield et al's (2008) hypothesis, we expected that the effect of instrumental value would be stronger for memorization than for elaboration and control strategies but the effect of intrinsic value would be stronger for elaboration and control strategies than for memorization strategies. (3) Do the effects of the motivational variables on a specific SRL strategy differ from each other (e.g., Do the effects of self-efficacy on elaboration differ from that of the effects of intrinsic value and instrumental value on the same outcome?). Based on evidence reported in several studies (e.g., Berger & Karabenick, 2011; Wolters & Pintrich, 1998), the expectation was that the effects of self-efficacy in general would be weaker than the effects of intrinsic and instrumental value on the three SRL strategies. With regard to the two task value components, it was hypothesized that instrumental value would be a stronger predictor of memorization but a weaker predictor of elaboration and control than intrinsic value. These hypotheses were tested using a multivariate multilevel analysis that allows estimation of such comparison while controlling for correlations among the outcome variables.

2. Method

2.1. Data Source and Sample

The data for the current study come from the Program for International Student Assessment (PISA 2003) data set for USA. PISA assesses performance of 15-year-old students in three-core domains (i.e., reading, math and science) tri-annually. The focal subjects change every three years. The 2003 PISA cycle focused on math. PISA uses a two-stage stratified sampling procedure in which minimum of 150 schools are randomly sampled in each participating country from which 35 15-year-olds are randomly selected (OECD, 2004). This ensures to obtain a nationally representative sample of this age group. The US sample consisted of 274 schools and 5456 fifteen-year-old students. The participants were 49.8 girls, 3.1% Asian, 15.5% Black, 16.7% Hispanic, 57.3% White, and 4.7% 'other' racial/ethnic groups.

2.2. Measures

2.2.1. Motivational variables

2.2.1.1. Self-efficacy. Six items were used to assess students' level of self-efficacy. The students were asked to rate their level of confidence in doing six math tasks on a scale of 1 (not at all confident) to 4 (very confident) (α = .88). An example item reads: "Calculating how much cheaper a TV would be after a 30% discount"

2.2.1.2. Intrinsic value. The intrinsic value measure consisted of 4 items (α = .92) pertaining to students' interest in and enjoyment of mathematics. The items were rated on a 4-point scale 1(strongly disagree) to 4 (strongly agree). An example item reads: "I do mathematics because I enjoy it"

2.2.1.3. Instrumental Value. The students' instrumental value of math was captured using four items (α = .89) that focused on the extent to which they were encouraged to learn by external rewards such as good job prospects. The items were rated on a 4-point scale 1(strongly disagree) to 4 (strongly agree). An example item reads: "Learning mathematics is worthwhile for me because it will improve my career prospects".

2.2.2. Self-Regulated learning strategies

2.2.2.1. Memorization strategies. Memorization strategies were assessed using 4 items (α = .67) that focused students' use of learning strategies for mathematics that involve "representations of knowledge". An example item reads: "I go over some problems in mathematics so often that I feel as if I could solve them in my sleep".

2.2.2.2. Elaboration strategies. Five items (α = .80) were used to assess students' use of elaboration strategies. The items were rated on a 4-point scale 1(strongly disagree) to 4 (strongly agree). An example item reads: "I try to understand new concepts in mathematics by relating them to things I already know".

2.2.2.3. Control strategies. Five items (α = .81) were used to assess students' use of meta-cognitive strategies. The items were rated on a 4-point scale 1(strongly disagree) to 4 (strongly agree). An example item reads: "When I study for a mathematics test, I try to figure out the most important parts to learn".

2.2.3. Socio-economic status (SES)

PISA's index for SES was derived from three sources: the highest occupational status of either parent, highest educational level of either parent in years of education, and the index of family/home possessions (OECD, 2004). In the current study, SES was standardized with a mean of '0' and a standard deviation of '1'.

2.3. Analytic strategy

A multivariate multilevel analysis (MVMLA) was used to compare the relative effects of the three motivational variables on the three SRL strategies. MVMLA is a multilevel model with multiple outcome variables nested within upper level units. In the current study, the three SRL strategies at level 1 are nested with individual students at level 2, who in turn are nested within their schools at level 3. An important advantage of using of MVMLA is that it helps in comparing the relative effects of individual predictors. In addition, MVMLA provides more powerful test of specific effects for single dependent variables than univaraite analysis due to relatively smaller standard errors (Hox, 2010; Park, Pituch, Kim, Chung, & Dodd, 2015; Snijders & Bosker, 2012). In this study, two models were specified: an unconditional model (i.e., only the three SRL variables with no explanatory variables) and a conditional model that included the three motivational variables and the control variables. The conditional multivariate multilevel equation used in this study can be written as follows:

$$y_{1jk} = \beta_{0jk} + \beta_{1ijk} + \beta_{2ijk} + \beta_{3ijk} + \beta_{5ijk} + \beta_{5ijk}$$

$$\beta_{0jk} = \beta_0 + v_{0j} + u_{0jk}$$

$$y_{2jk} = \beta_{0jk} + \beta_{1ijk} + \beta_{2ijk} + \beta_{3ijk} + \beta_{5ijk} + \beta_{5ijk}$$

$$\beta_{1jk} = \beta_1 + v_{1j} + u_{1jk}$$

$$y_{3jk} = \beta_{0jk} + \beta_{1ijk} + \beta_{2ijk} + \beta_{3ijk} + \beta_{5ijk} + \beta_{5ijk}$$

$$\beta_{2jk} = \beta_2 + v_{2j} + u_{2jk}$$

$$\begin{bmatrix} v_{0k} \\ v_{1k} \\ v_{2k} \end{bmatrix} \backsim N(0, \Omega_v): \Omega_v = \begin{bmatrix} \sigma_{vo}^2 & & \\ \sigma_{v01} & \sigma_{v1}^2 & \\ \sigma_{v02} & \sigma_{v12} & \sigma_{v2}^2 \end{bmatrix}$$

$$\begin{bmatrix} u_{0jk} \\ u_{1jk} \\ u_{2jk} \end{bmatrix} \backsim N(0, \Omega_u): \Omega_u = \begin{bmatrix} \sigma_{uo}^2 & & \\ \sigma_{u01} & \sigma_{u1}^2 & \\ \sigma_{u02} & \sigma_{u12} & \sigma_{u2}^2 \end{bmatrix}$$

Where y_{1jk}, y_{2jk} *and* y_{3jk} represent memorization, elaboration and control strategies respectively, $\beta_{1jk} - \beta_{3jk}$ represent the motivational predictors and β_{4jk} and β_{5jk} represent, gender and SES, respectively. In the variance–covariance matrixes, the diagonal elements represent the variances and the off-diagonal elements capture the covariance among the random effects.

To assess model fit, we used deviance statistic, which is equal to -2 times the natural log of the likelihood function and serves as measure of badness of fit (Snijder & Bosker, 2012). Since deviance cannot be interpreted directly, we used difference in deviance (ΔD). The ΔD has a chi-square distribution with degrees of freedom equal to the difference in the number of parameters in the two models (i.e., unconditional vs. conditional). We calculated proportionate reduction of error (PRE) measures as proxy for explained variance at each level of analysis (Snijders & Bosker, 2012). Post-hoc coefficient comparison tests (Paternoster, Brame, Mazerolle & Piquero, 1998) were used to examine differential effects of motivational variables on the SRL strategies. To aid interpretation the motivational variables were centered. The MVML models were fit with full maximum likelihood estimation (i.e., iterative generalized least square) in MLwiN2.30 (Rasbash, Charlton, Browne, Healy & Cameron, 2012).

3. Results

Descriptive statistics and correlations among study variables are presented in Table 1. The correlation results indicate that the motivational variables are significantly correlated with the three learning strategies. Whereas SES is positively associated with memorization and control strategies, its association with elaboration was negative and non-significant.

Table 1. Means, Standard Deviations and Correlations Among the Study Variables

		Mean	SD	1	2	3	4	5	6	7
1	Self-efficacy	3.13	.56							
2	Intrinsic value	2.29	.74	.35**						
3	Instrumental Value	3.01	.68	.36**	.60**					
4	Memorization	2.73	.52	.31**	.45**	.41**				
5	Elaboration	2.61	.57	.27**	.46**	.39**	.58**			
6	Control	2.93	.50	.33**	.39**	.40**	.68**	.57**		
7	SES	.00	1	.32**	-.01	.05**	.05**	-.02	.10**	

Note: ** $p < .01$.

The results of the unconditional and the conditional multivariate multilevel (MVML) models are presented in Table 2. The unconditional MVML model results indicate that 93% of the variance in memorization strategies, 88% of the variance in elaboration strategies and 89% of the variance in control strategies are attributable to individual students. The proportions of variance in the three strategies at the school level are 7%, 12% and 11% respectively. The findings suggest that much of the variability in SRL strategies lay between students.

The first question involved examination of the role of three motivational variables in predicting the SRL strategies. Before specific effects of the motivational variables are evaluated it is important to determine if the conditional MVML model is better fit to the data than the unconditional MVML model (i.e., the more complex model). Table 2 shows that the deviance of the conditional model (Model1) is smaller than that of the unconditional model (Model0) (ΔD = 2,271.88). As mentioned above, with change in number of parameters estimated (ΔP =15) as a degree of freedom, we compare 2,271.88 to the critical value of chi-square which is 24.99. Thus, Model1 is a much better fit to the data than Model0. Table 2 indicates that the variables included in Model1 reduced the between student variances in the learning strategies, on average, by 24%. More specifically the model reduced the student level variance in memorization by 26%, elaboration by 23% and control by 25%. Table 2 also shows that the three motivational variables are significant predictors of the three learning strategies even after controlling for potential confounding variables of SES and gender. More specifically, self-efficacy predicted students' use of memorization, elaboration and control strategies. Similarly, both intrinsic value and instrumental value predicted the three SRL strategies. In addition, the analysis showed that SES has small but significant positive effect on control strategy but negative effect on elaboration strategy and no statistically significant effect on elaboration. Females reported higher levels of elaboration and control strategies but lower levels of memorization than males in the sample.

Table 2. Multivariate Multilevel Regression Estimates of the Effects of Motivational Variables on SRL Strategies

	Unconditional model (M_0)						Conditional model (M_1)					
	Memorization		Elaboration		Control		Memorization		Elaboration		Control	
	B	SE	B	SE	B	SE	B	SE	B	SE	B	SE
Fixed Effects												
Intercept	2.73**	.01	2.61**	.01	2.93**	.01	1.86**	.03	1.63**	.03	2.20**	.03
Self-efficacy							.07**	01	.06**	.01	.08**	.01
Intrinsic value							.19**	.01	.24**	.01	.13**	.01
Instrumental Value							.16**	.01	.13**	.01	.16**	.01
Gender							-.07**	.01	.04**	.02	.04**	.01
SES							.00	.01	-.03*	.01	.02*	.01
Random Effects												
Student Level	.27**	.00	.30**	.00	.24**	.00	.20**	.00	.23**	.00	.18**	.00
School Level	.02*	.00	.04*	.00	.03*	.00	.02*	.00	.03*	.00	.02*	.00
Deviance			19002.09						16280.21			

Note: * $p < .05$; ** $p < .01$.

The second research question involved examining the extent to which the effects of the motivational variables differed by SRL strategies. To answer this research question, the effects of each motivational variable on the SRL strategies was compared using Post-hoc coefficient comparison tests. These post-hoc analyses showed that the effects of each of the motivational variables did not significantly differ by the SRL strategies. For instance, effect of self-efficacy on memorization does not differ from its effect on elaboration ($Z = .74$, $p = .24$) or control strategies ($Z = -.74$, $p = .24$). This suggests that the effects of the motivational predictors are invariant across the SRL outcomes.

The third goal of this study was to examine whether the effects of the motivational variables on a specific SRL strategy use differ from each other. Post-hoc analyses compared whether the effect of a motivational variable on one SRL strategy is stronger or weaker than on another SRL strategy. The results indicated that compared to self-efficacy, both intrinsic value ($Z = 2.67$, $p < .05$) and instrumental value ($Z = 2.00$, $p < .05$) were stronger predictors of memorization strategy. The effect of instrumental value was stronger than that of self-efficacy for elaboration ($Z = 2.01$, $p < .05$) and control strategies ($Z = 4.02$, $p < .05$). Intrinsic value and instrumental value effects differed only when predicting elaboration such that intrinsic value was stronger ($Z = 2.67$, $p < .05$). Overall, the results show that achievement value, whether intrinsic or extrinsic appear to be stronger than self-efficacy in predicting SRL strategies.

5. Discussion

Self-regulated learning is an important predictor of academic outcomes (Dent & Koenka, 2016; Hattie & Donoghue, 2016). Thus, understanding what motivates students to engage in self-regulation has become an important issue that has received a great deal of attention among researchers (see Schunk & Zimmermann, 2008; Zimmerman, 2011). This study sought to contribute to this growing body of literature by examining the contribution of three important motivational variables (i.e., self-efficacy, intrinsic value & instrumental value) to SRL in a nationally representative sample of 15-year old students. The study examined the unique as well as the differential effects of these motivational variables. The findings showed that self-efficacy, intrinsic value and instrumental value each contribute uniquely to prediction of the SRL strategies. The results also showed that the effects of the motivational variables differ from each other to some extent.

The first goal of this study was to investigate whether the three motivational variables uniquely contributed to the prediction of SRL strategies after controlling for SES, gender and inter-correlations among the SRL strategies themselves. The results of the conditional MVML model showed that even after controlling for SES and gender, the three motivational variables significantly predicted the three SRL strategies. Consistent with

previous findings (e.g., Lee, Lee & Bong, 2014; Pintrich, 1999; Wolters & Pintrich, 1998; Zimmerman, 2002) self-efficacy predicted the three SRL strategies assessed in the current study. Students who thought they were capable of learning mathematics were more likely to report the use of memorization, elaboration and control strategies. In addition, both intrinsic value and instrumental value significantly predicted the three SRL strategies. These results are consistent with other studies that found significant associations between the SRL strategies and composite task value (e.g., Berger & Karabenick, 2011; Pintrich, 1999; Wolters & Pintrich, 1998) or interest (Lee, et al., 2014). The findings suggest that students may not engage self-regulation if they are not interested in or do not perceive the instrumental value of the task (Zimmerman, 2011). Compared with self-efficacy, students' perception of value of academic subjects has been given little attention in the self-regulation literature (Wigfield et al., 2008). This study demonstrated that at least two task value components identified by Eccles (2009) appear to be uniquely associated with SRL.

The second goal of this study was to examine whether the effects of motivation vary across SRL outcomes. Although no empirical studies have examined the issue, several scholars suggested that the effects of self-efficacy and achievement value might differ by SRL strategies such that the effects would be stronger for elaboration and control than for memorization (Pintrich, 1999). The findings of the current study suggest that the motivational variables appear to be equally important for each of the strategies. The effect of self-efficacy on memorization is not significantly different from its effects on elaboration and control strategies. Contrary to Wigfield et al's (2008) hypothesis, the effects of intrinsic value and instrumental value on the three strategies did not significantly differ from each other.

The third goal of the study was to examine the differential effects of the motivational variables across each of the SRL strategies. The findings revealed that compared to self-efficacy, both intrinsic value and instrumental value appear to be stronger predictors of SRL strategies. The effects of intrinsic value and instrumental value on memorization were stronger than that of self-efficacy. The effect of instrumental value was stronger than that of self-efficacy for elaboration and control strategies. The stronger effects of the two value components indicate that student's selection and use of strategies might depend more on on their purpose than their confidence in their ability. However, comparison between intrinsic and instrumental value effects showed only the effect of intrinsic value on elaboration was stronger than that of the of the effect of instrumental value.

The interpretation of the findings of the current study should be made in light of the following limitations. First, both SRL and motivation variables were self-reported. Although the current study focus was on the aptitude of SRL (Winne & Perry, 2000), fine grained analysis of motivation and SRL require different methods than just self-reports. Trace studies and video based observation might capture the dynamics of motivation and self-regulation in action (Zimmerman, 2008). Thus, future research should utilize such innovative methods to examine the dynamics of motivation and self-regulation components. Second, although this study is based on the theoretical proposition that motivation plays an important role in SRL, the cross-sectional deign of the PISA data does not allow to derive any conclusion that purports a causal precedence in terms of time. What limited longitudinal studies available suggest the primacy of motivation (see Berger & Karabenick, 2011). Finally, this study showed that three motivational variables are important predictors of SRL even after controlling for SES and gender. Nevertheless, the motivational constructs included in the study are limited to only three variables. Other variables such as achievement goals, attributions, goal setting and future time perspective are not discussed in relative terms (See Schunk, Meece & Pintrich, 2013; Schunk & Zimmerman, 2008). Although future research should examine the differential role of these motivational variables, the three constructs used in the current study are among the most useful educational psychology constructs that are used in international educational assessments (Marsh, Abduljabbar, Abu-Hilal, Morin, Abdelfattah, Leung & Parker, 2013).

Notwithstanding these limitations, the current study contributes to the extant literature in several ways. First, understanding whether motivational effects differ by the SRL strategies has both practical and theoretical significance. Practically, interventions that target a specific SRL strategy might choose to focus on a specific motivational variable. Theoretically, knowledge of differential motivational effects on SRL outcomes helps in refining theories in such a way that elimination or addition of a motivational variable is possible. Second, the study used sophisticated analytic strategy to examine the effects of motivation on SRL strategies by controlling for inevitable correlations between the outcome variables, thereby reducing type I error. Third, by examining the multivariate associations between motivation and self-regulated learning in a nationally

representative sample, this study contributes to the knowledge base on the role of motivation in self-regulated learning. In conclusion, the findings of the study suggest we need to take correlations among SRL strategies when examining impact of motivation. This is particularly important for interventions that target motivation to enhance self-regulated learning.

References

Artlet, C., Baumert, J., Julius-McElvany, N., & Peschar, J. (2003). Learners for Life. Student Approaches to Learning. Results from PISA 2000.

Berger, J. L., & Karabenick, S. A. (2011). Motivation and students' use of learning strategies: Evidence of unidirectional effects in mathematics classrooms. *Learning and Instruction, 21*(3), 416-428. doi:10.1016/j.learninstruc.2010.06.002

Bjork, R. A., Dunlosky, J., & Kornell, N. (2013). Self-regulated learning: Beliefs, techniques, and illusions. *Annual Review of Psychology, 64*, 417-444. doi:10.1146/annurev-psych-113011-143823

Boekaerts, M. (2010). Motivation and self-regulation: two close friends. In T. Urdan, & S. A. Karabenick (Eds.), Advances in motivation and achievement. The next decade of research in motivation and achievement, 16B, 73-112, London: Emerald.

Dent, A. L., & Koenka, A. C. (2016). The relation between self-regulated learning and academic achievement across childhood and adolescence: a meta-analysis. *Educational Psychology Review, 28*, 428-474. doi:10.1007/s10648-015-9320-8

Dinsmore, D. L., Alexander, P. A., & Loughlin, S. M. (2008). Focusing the conceptual lens on metacognition, self-regulation, and self-regulated learning. *Educational Psychology Review, 20*, 391-409. doi:10.1007/s10648-008-9083-6

Eccles, J. (2009). Who am I and what am I going to do with my life? Personal and collective identities as motivators of action. *Educational Psychologist, 44*(2), 78-89. doi:10.1080/00461520902832368

Hattie, J. A., & Donoghue, G. M. (2016). Learning strategies: a synthesis and conceptual model. Npj/Science of Learning, 1, 1-13. doi:10.1038/npjscilearn.2016.13

Hox, J. (2010). Multilevel analysis: Techniques and applications (2nd ed.). New York, NY: Routledge.

Lee, W., Lee, M. J., & Bong, M. (2014). Testing interest and self-efficacy as predictors of academic self-regulation and achievement. *Contemporary Educational Psychology, 39*(2), 86-99. doi:10.1016/j.cedpsych.2014.02.002

Marsh, H. W., Abduljabbar, A. S., Abu-Hilal, M. M., Morin, A. J., Abdelfattah, F., Leung, K. C., & Parker, P. (2013). Factorial, convergent, and discriminant validity of TIMSS math and science motivation measures: A comparison of Arab and Anglo-Saxon countries. *Journal of Educational Psychology, 105*(1), 108-118. doi:10.1037/a0029907

Organization for Economic Co-operation and Development. (2004). Learning for tomorrow's world: First results from PISA 2003. Paris: Author.

Park, R., Pituch, K. A., Kim, J., Chung, H., & Dodd, B. G. (2015). Comparing the performance of multivariate multilevel modeling to traditional analyses with complete and incomplete data. *Methodology, 11*, 100–109. doi:10.1027/1614-2241/a000096

Paternoster, R., Brame, R., Mazerolle, P., & Piquero, A. (1998). Using the correct statistical test for the equality of regression coefficients. *Criminology, 36*(4), 859-866. doi:10.1111/j.1745-9125.1998.tb01268.x

Pintrich, P. R. (1999). The role of motivation in promoting and sustaining self-regulated learning. *International Journal of Educational Research, 31*(6), 459-470. doi:10.1016/s0883-0355(99)00015-4

Pintrich, P. R., & DeGroot, E. V. (1990). Motivational and self-regulated learning components of classroom academic performance. *Journal of Educational Psychology, 82*(1), 33-40. doi:10.1037//0022-0663.82.1.33

Pintrich, P. R., & Zusho, A. (2002). The development of academic self-regulation: the role of cognitive and motivational factors. In A. Wigfield, & J. S. Eccles (Eds.), Development of achievement motivation (pp. 249–284). San Diego: Academic Press.

Rasbash, J., Charlton, C., Browne, W.J., Healy, M. and Cameron, B. (2009) MLwiN Version 2.1. Centre for Multilevel Modelling, University of Bristol.

Ryan, R. M., & Deci, E. L. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary educational psychology, 25*(1), 54-67. doi:10.1006/ceps.1999.1020

Schunk, D.H. Meece J.L., & Pintrich, P. R. (2013). Motivation in education: Theory, research, and applications (4th Ed.). Englewood Cliffs, NJ: Prentice Hall Merrill.

Schunk, D. H., & Zimmerman, B. J. (2008). Motivation and self-regulated learning: Theory, research, and applications. Mahwah, NJ: Lawrence Erlbaum.

Sins, P. H., van Joolingen, W. R., Savelsbergh, E. R., & van Hout-Wolters, B. (2008). Motivation and performance within a collaborative computer-based modeling task: Relations between students' achievement goal orientation, self-efficacy, cognitive processing, and achievement. *Contemporary Educational Psychology, 33*(1), 58-77. doi:10.1016/j.cedpsych.2006.12.004

Sitzmann, T., & Ely, K. (2011). A meta-analysis of self-regulated learning in work-related training and educational attainment: what we know and where we need to go. *Psychological Bulletin, 137*(3), 421. doi:10.1037/a0022777

Snijders, T. A. B., & Bosker, R. J. (2012). Multilevel analysis: An introduction to basic and advanced multilevel modeling (2nd ed.). London, England: Sage.

Weinstein, C. E., Acee, T. W., & Jung, J. (2011). Self-regulation and learning strategies. New Directions for *Teaching and Learning, 126*, 45-53. doi:10.1016/b978-012109890-2/50051-2

Weinstein, C. E., & Mayer, R. E. (1986). The teaching of learning strategies. In M. C. Wittrock (Ed.), Handbook of research on teaching (3rd ed.). (pp. 315-327) New York: Macmillan.

Wigfield, A., & Cambria, J. (2010). Expectancy-value theory: retrospective and prospective. In T. Urdan, & S. A. Karabenick (Eds.), Advances in motivation and achievement. The next decade of research in motivation and achievement, 16A (pp. 35-70). London: Emerald.

Wigfield, A., Hoa, L. W., & Klauda, S. L. (2008). The role of achievement values in the regulation of achievement behaviors. In D. H. Schunk, & B. J. Zimmerman (Eds.), Motivation and self-regulated learning: Theory, research, and applications (pp. 169-195). New York: Erlbaum.

Winne, P. H., & Perry, N. E. (2000). Measuring self-regulated learning. In M. Boekaerts, P. R. Pintrich, & M. Zeidner (Eds.), Handbook of self-regulation (pp.531-599). San Diego, CA: Academic.

Wolters, C. A., & Pintrich, P. R. (1998). Contextual differences in student motivation and self-regulated learning in mathematics, English, and social studies classrooms. *Instructional science, 26*(1-2), 27-47. doi:10.1007/978-94-017-2243-8_6

Zimmerman, B. J. (2011). Motivational sources and outcomes of self- regulated learning and performance. In B. J. Zimmerman & D. H. Schunk (Eds.), Handbook of self-regulation of learning and performance (pp. 49–64). New York, NY: Routledge.

Zimmerman, B. J. (2008). Investigating self-regulation and motivation: historical background, methodological developments, and future prospects. *American Educational Research Journal, 45*(1), 166-183. doi:10.3102/0002831207312909

Zimmerman, B.J.& Labuhn, A.S. (2012). Self-regulation of learning: process approaches to personal development. In K.R. Harris, S. Graham, T. Urdan (Eds.), APA Educational Psychology Handbook, Vol. 1, American Psychology Association, Washington DC, pp. 399–425

Zimmerman, B. J., & Martinez-Pons, M. (1990). Student differences in self-regulated learning: Relating grade, sex, and giftedness to self-efficacy and strategy use. *Journal of Educational Psychology, 82*(1), 51. doi:10.1037//0022-0663.82.1.51

Zimmerman, B.J., & Schunk, D. H. (2008). Motivation: An essential dimension of self- regulated learning. In D. H. Schunk & B. J. Zimmerman (Eds.), Motivation and self-regulated learning: Theory, research, and applications (pp. 1–30). Mahwah, NJ: Lawrence Erlbaum.

The Personality of a "Good Test Taker": Self-Control and Mindfulness Predict Good Time-Management When Taking Exams

Jeffrey M. Osgood[1], Olivia McNally[2], Grace Talerico[3]

[1,2,3]*Florida Gulf Coast University, Florida, USA*

ARTICLE INFO

ABSTRACT

Much prior research has linked trait self-control and trait mindfulness with improved performance on overall academic metrics such as GPA. The present research expands on this literature by linking self-control, mindfulness, and closely related personality constructs to differences in the way students manage their time while taking exams. Students at two large public universities (total n = 362) completed scale measures of self-control, mindfulness, and their use of time when taking timed examinations. The results suggest that trait self-control (r = .174) and trait mindfulness (r = .311) are statistically significant predictors of effective time management while taking timed exams.

1.Introduction

What makes some students "good test takers" whereas other seemingly equally intelligent students fail to perform? Researchers have identified many factors other than intelligence that affect students performance on exams, such as stereotype threat (Good, Aronson, & Inzlicht, 2003), anxiety (Cassady & Johnson, 2002), and study habits (Culler & Holahan, 1980). Evidently, many variables can affect how well a student actually performs on test day. The difficulty of succeeding on exams is compounded by the fact that many academic exams are timed. Timed examinations present additional and unique challenges to the student. Performing well on such assessments requires regulating attention to the test while ignoring distractions, pacing oneself on questions, being self-aware of one's own knowledge, and monitoring one's progress on individual problems against the time being used so to decide when to skip to the next question, among other things. In sum, effective test taking, particularly on timed exams, requires effective self-regulation and strong awareness of one's situation, not only intelligence. Therefore, students with personality traits that predispose them to effective self-regulation and attention to their current situation, should predict effective time management with taking exams. Two such personality traits are self-control and mindfulness.

1.1. Self-Control and Academic Performance

Self-control is commonly understood to mean intentionally modifying one's automatic behaviors or responses so to act in a way consistent with long-term goals, values, or acceptable standards (e.g., Baumeister, & Heatherton, 1996). Stable individual differences in self-control exist such that the self-control exhibited by someone as a child is a reliable predictor of self-control decades later (Mischel, Shoda, & Rodriguez, 1990). Furthermore, the amount of self-control a person displays in one area of life can predict self-control displayed in other areas of life. For example, people who show weak self-control when choosing between smaller but immediate monetary rewards rather than larger/later ones, also tend to show weaker self-control when trying

---

to limit their alcohol consumption (Osgood & Muraven, in press). For this reason, psychologists often measure self-control as a personality trait using self-report scales (e.g., Tangney, Baumeister, & Boone, 2004) and/or ratings of observed behaviors by other people such as parents and teachers (e.g., Duckworth & Seligman, 2005). Although the myth persists among members of the western public that academic achievement is primarily the result of innate ability, social science research often finds that trait self-control predicts academic success better than IQ (see Duckworth, Quinn, & Seligmann, 2012).

The connection between individual differences in self-regulation and overall academic performance is well established in nearly every student age group and longitudinally (see de Ridder, Lensvelt-Mulders, Finkenauer, & Baumeister, 2012). In a classic study on the delay of gratification, social psychologist Walter Mischel asked young children to choose between receiving a single marshmallow immediately, or waiting an undefined amount of time for two marshmallows (Mischel & Ebbesen, 1970). When the same children were assessed a decade later, those who had waited longer in the original study grew up to be more academically successful adolescents than those who gave in to temptation more quickly: they earned higher grades (Mischel, Shoda, & Peake, 1988) and achieved higher SAT scores (Shoda, Mischel, & Peake, 1990). More recently, Duckworth and Seligman (2005) reported the results of a longitudinal study where self-control assessed at the start of the school year via questionnaires completed by parents, teachers, and students themselves predicted end of year academic achievement better than IQ in a two groups of eighth graders.

Indeed, individual differences in self-control consistently predict academic success. For example, several studies report strong correlations between trait level measures of self-control and college grade point average (GPA) (Duckworth, Quinn, & Tsukayama, 2012; Duckworth & Seligman, 2005; Tangney, Baumeister, & Boone, 2004; Wolfe & Johnson, 1995). Relatedly, Hogan and Weiss (1974) found that students elected to the academic honor society Phi Beta Kappa scored higher on the California Psychological Inventory (CPI) measure of trait self-control than a sample of equally intelligent students who were not elected to the honor society.

Although the relationship between self-control and major metrics of academic success such as GPA are well represented in the literature, fewer studies have researched links between trait self-control and specific academic behaviors. Some exceptions to this include research by Duckworth and colleagues (2005; 2012), which found that students with higher self-control tended to complete homework more regularly, procrastinate less, spend more time on schoolwork, and less time on non-academic related distractions such as television watching. Still, no published research has assessed how trait self-control might predict effective testing behaviors when taking exams. Nevertheless, there is strong theoretical grounding to predict that students who are higher in trait self-control would manage their time better when taking tests. Pacing oneself well on an exam requires maintaining focus and resisting the tendency to daydream or attend to distractions. It also requires the self-regulatory skills and willpower to make decisive choices about how to use one's limited time (e.g., choosing to skip a question when too much time is being used, answering easy questions first, etc) in a stressful situation. Unfortunately, the stress of examinations impairs effective self-control in many students (Oaten & Cheng, 2005) Furthermore, weak self-control can cause inattention and susceptibility to boredom and distractions (Osgood, 2015). Thus, possessing high trait self-control would be a great advantage and should predict more effective time management with taking exams.

1.2. Mindfulness and Academic Performance

In addition to resisting distractions and having the willpower to take decisive action, effective time management requires awareness of how much time is passing, how much time is left, and how much is being spent on each question. In other words, managing time when taking exams necessitates that one is mindful of their present situation, thoughts, and behaviors. This tendency to be "present" in the moment is called mindfulness (Kabat-Zinn, 2003). Specifically, mindfulness refers to one's level of awareness regarding their present situation and take a nonjudgmental posture towards one's thoughts and feelings (Schraer et al., 2017). Like, self-control, relatively stable individual differences in mindfulness are thought to exist (Davis, Lau, & Cairns, 2009). Correspondingly, trait mindfulness can be assessed via self-report questionnaires (Lau et al., 2006).

Although mindfulnesses role in academic success does not have the longstanding pedigree that self-control enjoys, new research over the past decade is slowly building a case for mindfulness as an instrument for learning (See Meiklejohn et al., 2012; see also Zenner, Herrnleben-kurz, Walach, 2014). In one experiment, 61

spanish high-school students were randomly assigned to either 10 weeks of mindfulness training or received no such training (Franco, Manas, Cangas, & Gallego, 2010). The academic performance of the students who received the mindfulness training improved significantly more than the performance of those who did not receive the training over the course of the study. Similar results have been found in studies using elementary school students (Bakosh, 2013) and undergraduate college students (Napora, 2013).

However, this nascent literature has some shortcomings. First, not all results have been so supportive. For instance, Brausch (2011) did not uncover a significant correlation between trait mindfulness and first semester college GPA. Second, like self-control, the role of mindfulness in specific academic behaviors is somewhat limited. Rather, most of the literature focuses on effect of mindfulness in reducing student stress/anxiety, cognitive performance, and emotional resiliency (Zenner, Herrnleben-kurz, Walach, 2014). Of particular interest to the current investigation, the relationship (if any) between mindfulness and time management on exams has yet to be investigated. Indeed, in general, the literature is lacking any examination of trait personality factors that predict specific behaviors on timed exams.

1.3. Present Research

The purpose of the present research is to investigate the role of self-control and mindfulness on time management when students take exams. Performance on timed exams often constitute a large percentage of a student's grade in a course and timed achievement tests such as the SAT and GRE are used in admissions decisions for post-secondary and post-graduate degree programs. Clearly, the stakes are very high for students to perform well on timed exams. Thus, better understanding what personality factors relate to students behaviors when taking such exams is important. In the present investigation, students completed personality scales that measured trait self-control (and closely related constructs) and mindfulness along with questions that measured their use of time while taking exams. Effectively managing one's time on exams requires self-monitoring, situational awareness, regulating attention, and effective decision making. These behaviors are associated with strong self-control and mindfulness (See Osgood & Salamone, 2017). Thus, trait self-control and mindfulness were both predicted to be positively associated with effective time management.

2.1. Study One

2.1.1. Methods

2.1.1.2. Participants

230 undergraduate students from a large public university in the northeastern United States arrived to complete the study. Students completed this study in exchange for partial course credit. Data from five participants either failed to record properly, the participants did not complete the study, or their responses were otherwise lost. Thus, data from 225 (125 Female; Age: M = 18.8, SD = 1.2) were used in analysis. Data collection began upon approval by the institutional review board and continued until the conclusion of the academic semester. Data was not analyzed until data collection was complete. All participants involved in the study are accounted for in the summary above.

2.1.1.3. Materials and Procedures

Upon arriving in the laboratory, participants were administered informed consent and taken to a computer station to complete the study which consisted of a series of surveys meant to measure self-control (and closely related constructs) as well as a questionnaire that asked them about their time management when taking timed exams. This data collection was done as part of a large-scale self-report study on the role of self-control in different aspects of college-life (e.g., academics, romantic relationships, student employment, etc). However, only those questionnaires related to self-control and time management on exams are reported here as that is the focus of the present paper. The order of the questionnaires was fully counterbalanced between participants. Specifically, participants completed the Self-Control Scale (SCS; Tangney et al., 2004); Values in Action Regulation of Self Subscale (VIA.SC; Petersen & Seligman, 2004); Values in Action Industriousness Subscale (VIA.IND; Petersen & Seligman, 2004); California Personality Inventory Self-Control Subscale (CPI; Gough, 1987); Emotion Based Decision Making Scale (EBDM; Barchard, 2001); and Grit Scale (GRIT; Duckworth, 2007). The VIA and CPI scales were accessed via the International Personality Item Pool (IPIP;

Goldberg et al., 2006). Finally, all participants completed a ten item experimenter created survey to assess various aspects of time management when taking exams (TTQ). All questions were answered on a Likert-Type scale with options ranging from 1 = "Not at all true" to 7 = "Very True". This included the following items (* indicates reverse coded in analysis). All questions on the survey are reported here:

"When taking a timed test...

1. "...it is easy for me to spend too much time on a single question."*

2. "...if I do not know the answer to a question, I always quickly skip it and proceed to the next one."

3. "...I will persist on a question or problem until I am satisfied with my answer, even if this takes a lot of time."*

4. "...I sometimes spend a lot of time thinking about a single question."*

5. "...if there are questions I still don't know after having finished the rest of the test, I will often run out the clock trying to figure out these questions."*

6. "...I tend to use all of the available time because I keep trying to figure out the answer to questions I do not know."*

7. "...I pace myself well."

8. "...I keep an eye on the clock."

9. "...I make sure that I have time to view every question."

10. "...I lose track of time easily." *

2.1.3. Results

The initial reliability of the experimenter created test taking scale was α = .73, items two and eight were dropped to maximize reliability at α = .79. Data from all questionnaires used in this study were normally distributed. Descriptive data is displayed on Table 1 and correlations between measures and outcomes are displayed on Table 2.

Table 1. Descriptive Data For Study One Surveys

Survey	Mean (SD)	n	α
SCS	82.8 (14.6)	225	.79
VIA.SC	49.1 (9.1)	225	.70
VIA.IND	41.0 (7.7)	225	.82
CPI	42.7 (10.0)	225	.77
EBDM	34.7 (9.1)	225	.84
GRIT	52.9 (8.2)	225	.67
TTQ	34.1 (8.6)	224	.73

Note: SCS: Self-Control Scale (Tangney et al., 2004); VIA.SC: Values in Action Regulation of Self Subscale (Petersen & Seligman, 2004); VIA.IND: Values in Action Industriousness Subscale (Petersen & Seligman, 2004); CPI: California Personality Inventory Self-Control Subscale (Gough, 1987); EBDM: Emotion Based Decision Making Scale (Barchard, 2001); GRIT: Grit Scale (Duckworth, 2007); TTQ (Overall Test Taking Questions, experimenter created).

Table 2. Pearson's Correlations for Study One

	SCS	VIA.SC	VIA.IND	EBDM	GRIT	TTQ
SCS	-	.427**	.511**	-.186**	.581**	.280**
VIA.SC	-	-	.386**	-.121~	.402**	.091
VIA.IND	-	-	-	-.022	.691**	.149*
EBDM	-	-	-	-	-.045	-.152*
GRIT	-	-	-	-	-	.181**
TTQ	-	-	-	-	-	-

Note: ~ p < .1, * p < .05, **p < .01. SCS: Self-Control Scale (Tangney et al., 2004); VIA.SC: Values in Action Regulation of Self Subscale (Petersen & Seligman, 2004); VIA.IND: Values in Action Industriousness Subscale (Petersen & Seligman, 2004); CPI: California Personality Inventory Self-Control Subscale (Gough, 1987); EBDM: Emotion Based Decision Making Scale (Barchard, 2001); GRIT: Grit Scale (Duckworth, 2007); TTQ (Overall Test Taking Questions, experimenter created).

2.2. Study Two

Study two was designed to serve two purposes. First, study two was intended to conceptually replicate the overall finding in study one that trait self-control is positively associated with effective test taking habits in a second independent sample of students at a different university. Second, study two sought to extend the finding of study one by testing the research hypothesis that trait mindfulness is positively correlated with effective test taking time management habits.

2.2.1. Methods

2.2.1.2. Participants

137 undergraduate students (84 Female; Age: M = 19.2, SD = 1.4) from a large public university in the southeastern United States participated in the study in exchange for partial course credit. Data collection began upon approval by the institutional review board and continued until the conclusion of the academic semester. Data was not analyzed until data collection was complete. All participants involved in the study are accounted for in the summary above.

2.2.1.3. Materials and Procedures

Upon arriving at the laboratory, participants were administered informed consent by the experimenter. Data collection was typically conducted with two participants at a time sharing a room, but at different desks not directly facing each other. Following the informed consent, participants completed the questionnaires (paper versions) one at a time. Participants were asked to notify the experimenter when they had completed a questionnaire so the experimenter could provide the next one. Participants were given a short (one minute) break between each questionnaire to reduce cognitive fatigue and attention loss. All personality questionnaires completed by participants are reported here. All participants completed the Toronto Mindfulness Scale/Questionnaire (TMQ; Davis et al., 2009), the same VIA.SC from study one, and an experimenter-produced questionnaire about exam time management, updated from and based on the questionnaire used in study one. Participants also completed a brief demographics survey. The experimenter created test taking survey for study two (TTQ_2) used in this study included the following items that were each answered on a four point Likert-Type scale where one = "Very Infrequently" and four = "Very Frequently" (* indicates items that were reverse coded in analyses). All questions on the survey are reported here.

"When taking a timed test…"

1.   ...I spend too much time on a single question*

2.   ... if I do not know the answer to a question, I always quickly skip it and proceed to the next one.

3.   ...I will persist on a question or problem until I am satisfied with my answer, even if this takes a lot of time.*

4.   ... if there are questions I still do not know after having finished the rest of the test, I will use all the remaining time trying to figure out these questions.

5.   ...I pace myself well

6.   ...I keep an eye on the clock

7.   ...I make sure that I have time to view every question

8.   ...I lose track of time easily*

9.   ...I need to read test questions more than once before I understand them well enough to answer.*

10.   ...I continue to study right up to the moment before the test starts.*

2.2.3. Results

Initially, the experimenter created test taking survey had an inter-item reliability of α = .51. This was maximized by dropping items six and ten to α = .64. Data from all questionnaires used in this study were normally distributed. Descriptive data is displayed on Table 3 and correlations between measures and outcomes are displayed on Table 4.

Table 3. Descriptive Data For Study Two Surveys

Survey	Mean (SD)	n	α
TMQ	56.2 (9.7)	137	.81
VIA.SC	30.5 (5.3)	137	.76
TTQ_2	22.7 (3.6)	137	.64

Note: TMQ: Toronto Mindfulness Questionnaire (Davis et al., 2009); VIA.SC: Values in Action Regulation of Self Subscale (Petersen & Seligman, 2004); TTQ_2 (experimenter created survey of test time management revised for study two).

Table 4. Pearson's Correlations for Study Two

	TMQ	VIA.SC	TTQ_2
TMQ	-	.272**	.311**
VIA.SC	-	-	.188*
TTQ_2	-	-	-

Note: * p < .05, ** p < .01. TMQ: Toronto Mindfulness Questionnaire (Davis et al., 2009); VIA.SC: Values in Action Regulation of Self Subscale (Petersen & Seligman, 2004); TTQ_2 (experimenter created survey of test time management revised for study two).

3.Discussion

The purpose of the present investigation was to test the hypothesis that high trait self-control and mindfulness predict more effective use of time when taking timed tests. These hypotheses were broadly supported across both studies. In study one, four out of the five scales used to assess trait self-control and closely related constructs were significantly correlated with students overall score on a questionnaire designed to assess how effectively students use their time when taking exams. In study two, the relationship of trait self-control and effective time management on exams was replicated in a different sample at another university. Furthermore, study two demonstrated a statistically significant relationship between trait mindfulness and test taking time management.

The present research represents an useful addition to the literature on trait self-control/mindfulness and academic performance. To date, most research measuring these personality traits have limited their investigations to linking them with general measures of academic success (e.g., GPA). To the authors knowledge, no other study has investigated the relationship between either trait self-control or trait mindfulness on specific student testing behaviors. This is unfortunate for several reasons. First, robust evidence now exists that self-control is a major predictor of academic success, even greater than IQ (Duckworth & Seligman, 2005), yet only a small number of studies have researched how specific academic behaviors relate to self-control; none of which look at test taking behaviors. Second, test scores often constitute a large component of a student's course grade and are used as major factors in academic admissions decisions, yet little is known about the personality factors that predict effective vs. ineffective test taking. Indeed, most research on test taking and personality has focused only on test anxiety. Finally, trait self-control and mindfulness can be stably changed with training (See Osgood & Salamone, 2017). Thus, reliable links between these traits and effective test-taking open the door to the possibility that training self-control/mindfulness may improve student testing performance. In sum, identifying the specific beneficial academic behaviors that are related to self-control is perhaps more useful than documenting links between traits and overall academic success. Doing so allows theorists to better understand the relationship between individual differences and academic success and empowers educators to identify and assist students at risk for counterproductive school behaviors more effectively.

The findings of these studies can help educators better understand and identify students who struggle when taking timed exams. In time, this may lead to more effective interventions to improve students testing performance and increase academic achievement. These findings have particular relevance for standardized achievement tests such as the GRE, MCAT, SAT, etc. Such tests are designed to make time usage a performance variable. In other words, these tests are written with more questions than most students are reasonably expected to be able to answer in the time they are given and reward effective time use. For example, on the SAT, each question is weighted the same, despite varying in difficulty. This rewards students who are able to move through the test efficiently and answer as many questions correctly as possible without squandering too much time on any given question when progress is not being made. Thus, those students who manage their time better would hold a distinct advantage over equally intelligent peers with poorer time management on such exams. Indeed, high self-control has already been linked to improved achievement test scores (Shoda et al., 1990). It is likely that high trait-mindfulness would be positively associated as well.

The applicability of these findings are not limited to achievement tests such as the SAT. Students with learning disabilities are particularly and negatively affected by exam time limits on regular academic tests relative to their normally achieving peers (e.g., Alster, 1997). Although not considered here, it is possible that self-control and mindfulness may be particularly important for students with learning disabilities. More concretely, mindfulness based training may improve test taking in some students who ordinarily require extended time. This is a future research direction that will need and should receive attention.

Although this research contributes positively to the literature overall, there are some shortcomings that should be addressed. Mainly, use of time on exams was assessed via self-report questions. A good follow-up for this research would be to observe students taking actual exams while coding their behaviors for effective/ineffective time management. The second shortcoming of the present research is that neither study collected measures of test performance such SAT or ACT scores. Future studies should consider testing

mediation models where mindfulness improves time management, which in turn improves scores on standardized exams where time is an important factor.

In addition to what was previously mentioned, the results of the present research suggest several promising avenues for future research. First and foremost, researchers should test whether programs that train self-control and/or mindfulness can improve students time management on exams. New research in social psychology suggests that both trait self-control and trait mindfulness can improve substantially and stably with training (See Osgood & Salamone, 2017). Combining those recent findings with the present research, it is likely that similar training could improve time management (and test scores) on standardized exams such as the GRE, MCAT, SAT, AP, and ACT. A reliable link between training mindfulness and improving testing habits would be a boon to college educators as many universities have begun implementing mindfulness training on campus, thus the infrastructure would already be in place to offer mindfulness training as a way to improve testing performance. Second, researchers should seek to investigate what other personality traits influence students time management when taking exams. For example, one might reasonably expect that certain Big Five "OCEAN" (John, Donahue, & Kentle, 1990) factors such as conscientiousness and neuroticism to be positively and negatively related to time management on tests, respectively. Third, the regulation of time on exams deserves more attention in general. Although time management tactics are basic curriculum for many achievement test preparatory course, relatively little scientific research has investigated how students naturally regulate their time while taking tests. Fourth, researchers should investigate the interaction between the stressfulness of a testing situation and personality factors like trait self-control or mindfulness on texting behaviors. For instance, perhaps in low stress testing situations (such as when there is ample time or the stakes of the test are low) the effect of personality of testing behaviors is weaker than in highly stressful testing situations. Finally, beyond self-control and mindfulness and even beyond test taking, the personality and learning literature would benefit from more research that links personality to more specific academic behaviors with defined contexts (such as regulating time while taking exams) rather than focusing mainly on broad measures like GPA or graduation rates.

In conclusion, academic researchers have come a long way in identifying individual differences that contribute to academic success. Perhaps chief among these individual differences is self-control, while the role of the related attribute of mindfulness has only more recently received attention. The present research builds off of this tradition by also affirming the positive relationship between strong self-control, strong mindfulness, and academic success. Importantly, the present research adds to the literature by implicating self-control and mindfulness as important predictors of how students regulate their use of time when taking exams. Although additional research will be needed, the future holds the promise of better understanding test-taking and building a world where fewer students think of themselves as "bad test takers".

References

Alster, E. H. (1997). The effects of extended time on algebra test scores for college students with and without learning disabilities. *Journal of Learning Disabilities*, *30*(2), 222-227.

Bakosh, L. S. (2013). *Investigating the effects of a daily audio-guided mindfulness intervention for elementary school students and teachers*(Doctoral dissertation, Institute of Transpersonal Psychology).

Baumeister, R. F., & Heatherton, T. F. (1996). Self-regulation failure: An overview. *Psychological Inquiry*, *7*, 1–15.

Brausch, B. D. (2011). The role of mindfulness in academic stress, self-efficacy, and achievement in college students. (Masters Thesis, Eastern Illinois, University).

Cassady, J. C., & Johnson, R. E. (2002). Cognitive test anxiety and academic performance. *Contemporary educational psychology*, *27*(2), 270-295. doi: 10.1006/ceps.2001.1094

Davis, K. M., Lau, M. A., & Cairns, D. R. (2009). Development and preliminary validation of a trait version of the Toronto Mindfulness Scale. *Journal of Cognitive Psychotherapy*, *23*(3), 185-197. doi:10.1891/0889-8391.23.3.185

de Ridder, D. T., Lensvelt-Mulders, G., Finkenauer, C., Stok, F. M., & Baumeister, R. F. (2012). Taking stock of self-control: A meta-analysis of how trait self-control relates to a wide range of behaviors. *Personality and Social Psychology Review*, *16*(1), 76-99. doi: 10.1177/1088868311418749.

Duckworth, A. L., Quinn, P. D., & Tsukayama, E. (2012). What No Child Left Behind leaves behind: The roles of IQ and self-control in predicting standardized achievement test scores and report card grades. *Journal of educational psychology*, *104*(2), 439-451. doi: 10.1037/a0026280

Duckworth, A. L., & Seligman, M. E. (2005). Self-discipline outdoes IQ in predicting academic performance of adolescents. *Psychological science*, *16*(12), 939-944. doi: 10.1111/j.1467-9280.2005.01641.x

Franco, C., Mañas, I., Cangas, A. J., & Gallego, J. (2010). The applications of mindfulness with students of secondary school: Results on the academic performance, self-concept and anxiety. *Knowledge management, information systems, e-learning, and sustainability research*, 83-97.

Good, C., Aronson, J., & Inzlicht, M. (2003). Improving adolescents' standardized test performance: An intervention to reduce the effects of stereotype threat. *Journal of Applied Developmental Psychology*, *24*(6), 645-662. doi:10.1016/j.appdev.2003.09.002

Gough, H. G. (1987). California Psychological Inventory- Administrator's Guide. Palo Alto, CA: Consulting Psychologists Press.

Hogan, R., & Weiss, D. S. (1974). Personality correlates of superior academic achievement. *Journal of Counseling Psychology*, *21*(2), 144-149.

John, O. P., Donahue, E. M., & Kentle, R. (1990). 'The ''Big Five. *Factor Taxonomy: Dimensions of Personality in the Natural Language and in Questionnaires.''In Handbook of Personality: Theory and Research, ed. Lawrence A. Pervin and Oliver P. John*, 66-100.

Lau, M. A., Bishop, S. R., Segal, Z. V., Buis, T., Anderson, N. D., Carlson, L., & Devins, G. et al. (2006). The Toronto mindfulness scale: Development and validation. *Journal of clinical psychology*, *62*(12), 1445-1467. doi: 10.1002/jclp.20326

Meiklejohn, J., Phillips, C., Freedman, M. L., Griffin, M. L., Biegel, G., Roach, A., ... & Isberg, R. (2012). Integrating mindfulness training into K-12 education: Fostering the resilience of teachers and students. *Mindfulness*, *3*(4), 291-307. doi:10.1007/s12671-012-0094-5

Mischel, W., & Ebbesen, E. B. (1970). Attention in delay of gratification. *Journal of Personality and Social Psychology*, *16*(2), 329-337.

Mischel, W., Shoda, Y., & Peake, P. K. (1988). The nature of adolescent competencies predicted by preschool delay of gratification. *Journal of personality and social psychology*, *54*(4), 687-696.

Mischel, W., Shoda, Y., & Rodriguez, M. I. (1989). Delay of gratification in children. *Science*, *244*(4907), 933-938.

Napora, L. (2013). *The impact of classroom-based meditation practice on cognitive engagement, mindfulness and academic performance of undergraduate college students*. State University of New York at Buffalo.

Onwuegbuzie, A. J., & Seaman, M. A. (1995). The effect of time constraints and statistics test anxiety on test performance in a statistics course. *The Journal of experimental education, 63*(2), 115-124.

Osgood, J. M., Muraven, M. (in press). Self-Control and alcohol consumption. To appear in Fujita, K, de Ridder, D., & Adriaanse, M (Eds). *Handbook of Self-Control in Health and Wellbeing.* London: Routledge.

Osgood, J. M. (2015). Acute cardiovascular exercise counteracts the effect of ego-depletion on attention: How ego-depletion increases boredom and compromises directed attention. *International Journal of Psychological Studies*, *7*(3), 85-96.

Osgood, J.M., Salamone, A. (2017). Can trait self-control improve with training? A review of the evidence and possible underlying mechanisms. *Advances in Psychology Research, 116*, 1-30.

Peterson, C., & Seligman, M. E. P. (2004). Character strengths and virtues: A handbook and classification. New York: Oxford University Press and Washington, DC: American Psychological Association. www.viacharacter.org

Shoda, Y., Mischel, W., & Peake, P. K. (1990). Predicting adolescent cognitive and self-regulatory competencies from preschool delay of gratification: Identifying diagnostic conditions. *Developmental psychology*, *26*(6), 978-986.

Tangney, J. P., Baumeister, R. F., & Boone, A. L. (2004). High self-control predicts good adjustment, less pathology, better grades, and interpersonal success. *Journal of personality*, *72*(2), 271-324.

Wolfe, R. N., & Johnson, S. D. (1995). Personality as a predictor of college performance. *Educational and psychological measurement*, *55*(2), 177-185.

Zenner, C., Herrnleben-Kurz, S., & Walach, H. (2014). Mindfulness-based interventions in schools—a systematic review and meta-analysis. *Frontiers in psychology*, *5*, 603. doi: 10.3389/fpsyg.2014.00603

PES

International Journal of Psychology and Educational Studies

www.ijpes.com

PES
International Journal of Psychology and Educational Studies

Analysis of 8th Grade Students' Viewpoints to the Concept of Democratic Citizen through Metaphors *

Gizem Karabulut[1,] Hülya Çelik[2]

[1] *Ministry of National Education, Yukarı Hereke Middle School, Körfez/Kocaeli.Turkey*
[2]*Sakarya University, Sakarya, Turkey*

ARTICLE INFO

ABSTRACT

In this study, it is aimed to determine the view of the 8th grade students on the concept of democratic citizens through the metaphors. In the research towards the general objective, one of the qualitative research designs phenomenology was used. The participants of the survey are 160, 8th grade students in the Körfez district of Kocaeli province in the academic year of 2016-2017. Of the 8th grade students who participated in the survey, 85 are boys and 75 are girls. Data have been reached with semi-structured forms. The metaphors and explanations written by the students were used as the basic data source in this research. Data were analyzed through content analysis. The findings from the research show that 8th grade students perceive democratic citizenship in eight categories: freedom, justice, unity and solidarity, participation, equality, patriotism, diligence and responsibility. When the opinions of the students are analyzed, it is seen that the metaphors they produce concentrate on the categories of freedom and justice. In this context, with 13 students the most widely used metaphor is "fair citizen". Besides the students produced metaphors mostly in the category of freedom. With "tree" and "free bird" metaphors they emphasized dimension of freedom of democratic citizenship. Students have also mentioned the distinctive characteristics of democracy, such as decision-making, election, voting, and having a saying in the country's administration when they are explaining what they do with democratic citizen.

Keywords:
Democratic Citizen, 8th grade Students, Metaphor, Citizenship

1. Introduction

The process of democracy in a healthy way, the formation of a democratic environment, is due to democratic citizens. A democratic citizen is an active citizen who is aware of his rights and responsibilities to the state and public.

Training democratic citizens is seen as a general purpose of education systems. It is clear that a real democratic administration and life style cannot emerge if the democracy cannot be grasped sufficiently and the principle identified with it cannot be sufficiently absorbed in its values and attitudes. In order for democracy to work at the desired level, it must not be perceived by humans alone, but should be internalized by the individual with all its values and qualities. Because democracy can only live and develop with the multitude of citizens who know its value (Güven, 2008). As long as there are generations that understand and assimilate the principles and qualities of democracy, there will be a stable and successful form of government based on democracy. For this reason, it is very important to know how students perceive opinions and thoughts about democratic citizens. Through metaphors, important elements in revealing the perceptions of individuals 'lives,

students' perceptions of democratic citizens can be revealed. Metaphors are being applied in a variety of areas of education in the context of encouraging learning and developing creative thinking (Aslan & Bayrakçı, 2009).

The essence of metaphors is to understand and experience something from anaother point of view (Lakoff, Johnson, 1980). The metaphor allow us to re-conceptualise, see from different directions, and illuminate some previously absolute situations by linking the object or phenomenon we want to understand to a network of concepts belonging to another domain of meaning (Taylor, 1984). There is a widespread recognation that metaphors play a significant aesthetical, ornamental and pedagogical role in literature and education (Botha, 2009). The metaphor can also be used to redefine facts and encourage conceptualization of problem situations as they affect our ways of perceiving situations and events (Goldstein, 2005).Individuals benefit from metaphors both when describing their own feelings and thoughts and when describing their feeling and thoughts. This is seen as an important element in revealing the perceptions of individuals. In this context, metaophors Show individuals the World and the way they perceive themselves (Girmen, 2007). There are many studies in the litarature on democracy perceptions of students (Kaldırım, 2005; Sadık & Sarı, 2012; Kuş & Çetin, 2014). But no direct study has been done on how they interpret the concept of democratic citizens through metaphors. If we want to educate democratic citizens, first of all, we need to know what the students which will be our next generation know about this issue. It seems to be necessary to investigate what they mean for constructing innovations on the preliminary knowledge of the students' "democratic citizens" concept, if there is a need to detect misunderstandings .

1.1. Present Study

In this research, it is aimed to determine the view of the 8th grade students on the concept of democratic citizens through metaphors. The reasons for the selection of 8th classes is that they should be more aware of the concept of democracy as age. For this purpose, the following two basic questions are sought in the study.

1) What metaphors do 8th grade students have regarding the concept of democratic citizenship?

2) What conceptual categories of metaphor emerging towards the concept of democratic citizens can be grouped in terms of common characteristics?

2. Method

2.1. Study Design

In the research, phenomonology which is one of the qualitative research designs was used. This research is a qualitative study in phenomenological design which examines the viewpoints of the middle school students about the concept of democratic citizens through the developed metaphors. In the research towards the general objective, one of the qualitative research designs phenomenology was used. The phenomenology focuses on phenomena in which we do not have an in-depth and detailed understanding of what we are aware of (Yıldırım & Şimşek, 2006).

2.2. Participants

The study group of this research constitutes a total of 160 8th grade students in the Kocaeli Körfez district in the 2016-2017 school year. Of the 8th grade students who participated in the survey, 85 are girls and 75 are girls. In the study, for the selection of the study group criterion sampling which is one of the in purpose sampling methods was used.

Table 1. Distribution of participants according to schools

School	Frequency	Percentage
Nuh Çimento Vatan Middle School	35	21,87
Rıfat Ilgaz Middle School	30	18,75
Uluğbey Middle School	42	26,25
Yukarı Hereke Middle School	53	33,13
Total	160	100,0

As shown in Table 1, 22% of the 165 middle school students who participated in the study, 37% of the Nuh Çimento Vatan Middle School 33% 20 of the Rıfat Ilgaz Middle School 42% 25 of the Uluğbey Middle School 53% of the 32% of the Yukarı Hereke Middle school students.

Table 2. Distribution of participants by gender

Gender	Frequency	Percentage
Male	75	46,9
Female	85	53,1
Total	160	100,0

As seen in Table 2, out of 165 middle school students participating in the survey, 75 male, 85 are female students. 50.3% of these students are from girls and 49.1% are from males.

Participants are constituted a total of 165 8th grade students in the Körfez district of Kocaeli Province in the academic year 2016-2017.

2.3. Instruments

Data have been reached with semi-structured forms. The students participating in the research are asked complete these sentences; The democratic citizen is similar to .... , Because.............. in order to reveal the metaphors of the democratic citizen concept.. Thus, students expressed their thoughts on the concept of democratic citizenship by using metaphor. The metaphors and explanations written by the students were used as the basic data source in this research.

2.4. Data Analysis

The analysis of the documents that the students produced metaphor for the democratic citizen was made by content analysis. The findings were interpreted by transforming the tables. This process consists of 3 stages (1)coding and sorting, (2)category development, (3)providing validity and credibility,

Stage of *Coding and Sorting:* A metaphor for the concept of "democratic citizen" has been determined and a table of metaphors has been established. In the study of 160 participants, the metaphor of 22 students was excluded because they were inappropriate and not fully understood. For example, a participant did not present a metaphorical image but rather defined the democracy as a self-governance of the people. Again, a student did not present any reason (logical basis) for the metaphor in question, as long as he expressed a certain metaphorical image. Metaphors formed by the remaining 138 students were categorized by the researcher and added to the metaphor table. The metaphors and categories in the metaphor table are agreed upon by the researchers. Generated categories and metaphors have been rearranged and interpreted by the researchers and presented to the reader.

Stage of Category development: In this stage, the metaphors created by the participants were mainly examined in terms of their common characteristics of the concept of "democratic citizen". Before categorizing, the sources in the field were taken into account. Based on the previously created metaphor table, 8 basic categories have been established and the metaphors created by the participants have been determined according to the logical bases of each categories. That is, since several metaphors have more than one meaning, these metaphors add the relevant categorization, adhering to the loaded meaning, and reveal the direct relation between metaphors and categories. In addition, percentage and frequency calculations of the emerging metaphors related to the categoricals were made using the SPSS 15.0 statistical package program.

Stage of validity and reliability: It is important to document the data collected in detail and explain how the investigator reaches the results in a qualitative research (Yıldırım & Şimşek, 2008). In order to ensure the validity and reliability of this research, two basic operations have been carried out. Firstly, the data analysis process is explained in detail in order to ensure validity, and all the data obtained are included in the findings both quantitatively and qualitatively. To ensure the reliability of the study, the metaphors were presented and compared to the experts of the 2 educational sciences in order to confirm whether the metaphors given under the 8 conceptual categories reached in the survey represent the category categorically. The reliability of the research was determined by using Miles and Huberman's (1994) formula (Reliability = opinion association / (opinion association + opinion separation)). The result of the reliability calculation of the study is 94%. Miles and Huberman (1994) recommended that consistency of the coding be in agreement at least 90% of the time for good qualitative reliability. In order to increase the reliability of the study, a study was also carried out in the classroom and school where the 1st researcher was teaching. It was frequently quoted from student views in order to increase the internal reliability and validity of the findings.

3.Results

In this section, metaphors and the categories created from the metaphors are interpreted in the tables.

Table 3. Distribution of Metaphors Created by 8th Grade Students

Metaphor	(f)	Metaphor	(f)	Metaphor	(f)	Metaphor	(f)	Metaphor	(f)
Justice	2	Language	3	swan	1	Role modal	3	Equal arm	5
Fair citizen	13	An old	1	Melody	1	Water mill	2	Citizen	5
Tree	7	Citizen	5	ocean	4	Unproblematic	2	Citizen	4
Atatürk	3	Sea	1	vote	3	Family tree	1	Dove	3
Enlightener	1	World	1	Voting box	8	Forest	2	Helpful	6
Non- sinking	2	Regular	1	teacher	1	Free bird	6	Responsible	5
A head of	1	Tressure	1	Sun	1	Arbiter citizen	1	Family	2
Cloud	3	Helium	1	Ant	4	Sky	3		
Hardworking	5	Pencil	3	A watery	3	Turkish Grand	2		
Flower	2	Wingless	1	Citizen	3				
Total									**138**

According to the findings of the content analysis conducted in the direction of the research question "What metaphors do 8th grade students have regarding the concept of democratic citizenship?" it is seen in the table 3 that 138 students produced 46 valid metaphors. The metaphors produced by the students on the concept of democratic citizens are : Fair citizen (13), Voting box (8), tree (7), free bird (6), Helpful citizen (6), Hardworking citizen (5), Equal arm scale (5), Citizen who protect his homeland (5), citizen who treat equally (5),responsible

citizen (5), Citizen who risk death for his homeland (4), ant (4), ocean (4), rol modal(3), a watery watermelon (3), Atatürk (3), sky (3), cloud (3), dove (3), Citizen defending his homeland (3), vote (3), pencil (3), justice flower (2), Non- sinking ferry (2), water mill (2), family (2), unproblematic country (2), forest (2), flower (2), Turkish Grand National Assembly (2), language(2), arbiter citizen (1), Enlightener candle (1), A head of crowd (1), an old book (1), Helium filled balloon (1), swan (1), sea (1), Wingless angel (1), teacher (1),Family tree (1), sun(1), melody (1), treasure (1), world (1), regular army (1).

22 students cannot produce any valid metaphors about democratic citizenship.

Table 4 . Distribution of metaphors related to democratic citizens by category

Category	(f)
Freedom	32
tree (7), free bird (6), ocean (4), Atatürk (3), sky (3), cloud (3), dove (3), Helium filled balloon (1), swan (1), sea (1)	
Justice	21
Fair citizen (13), rol modal(3), justice flower (2), Wingless angel (1), teacher (1), Family tree (1)	
Unity and solidarity	20
Helpful citizen (6), Non- sinking ferry (2), water mill (2), family (2), unproblematic country (2), melody (1), treasure (1), world (1), regular army (1), forest (2)	
Participation	16
Voting box (8), vote (3), Turkish Grand National Assembly (2), arbiter citizen (1), Enlightener candle (1), A head of crowd (1)	
Equality	14
Equal arm scale (5), citizen who treat equally (5), a watery watermelon (3), sun(1)	
Patriotism	12
Citizen who protect his homeland (5), Citizen who risk death for his homeland (4), Citizen defending his homeland (3)	
Diligence	12
Hardworking citizen (5), ant (4), flower (2), an old book (1)	
Responsibility	11
Responsible citizen (5), language (3), pencil (3)	
Total	**138**

According to the findings of the content analysis conducted in the direction of the research question "Which metaphors produced by middle school students can be grouped under the conceptual categories in terms of their common characteristics, 46 metaphors developed by middle school students were collected under 8 different conceptual categories. Freedom, justice, unity and solidarity, participation, equality, patriotism, diligence and responsibility.

Category 1: Democratic Citizen as the Expression of Freedom

It appears that this category of 10 metaphors and 32 pupils, formed by those who identify democratic citizens with freedom and perceive themselves as a part of democracy or themselves. When we look at the frequency distributions (number of students) of the metaphors in this category, the most frequently used are tree (7), free bird (6), ocean (4), Atatürk (3), sky (3), cloud (3), dove (3), Helium filled balloon (1), swan (1), sea (1). Below, there are some students statements in this category are given.

"A democratic citizen is like a free bird. Because in a democratic country, no one should be able to express fearlessly without believing that his ideas will be respected without being under pressure. Like a free bird, a man can flap its wings and go wherever he wants. If even a bird is doing it, it is possible for a citizen to do so in a democratic country. So democratic citizens should be free to express their thoughts like a free bird".

"Democratic citizen; It looks like the sky. Because freedom can be seen as infinite and unlimited. But in some cases freedoms can be limited like when a fish crosses the limits, it becomes the bait to the dog's fish. If people cross the limits of freedom, democracy cannot be talked about. So democratic citizens are free like the sky. But he must know the boundaries of the sky".

"The ability of the mechanism of democracy to work depends on the freedom to make democratic decisions freely. So democratic citizens must be free enough".

Category 2: Democratic Citizen as the Expression of Justice

It is seen that this category formed by the students who perceive democratic citizens as being fair is composed of 21 students and 6 different metaphors. When we look at the frequency distributions of the metaphors in this category (number of students), the most common ones are Fair citizen (13), role model (3), justice flower (2), Wingless angel (1), teacher (1), Family tree (1).

Below, there are some students' statements in this category are given.

"Democratic citizens are similar to fair citizen. Because we cannot talk about democracy in a country where there is no justice. If it comes to justice, however, the necessary order and system is formed. A democratic citizen believes in justice. They will not tolerate injustice. Democratic citizens work to live a just life and use their rights in this direction".

"Democratic citizens are like being fair. Because Ataturk gave the right to be elected and election to the Turkish nation. People should be fair when they exercise these rights. If we are not fair we ignore the rights of the ancestors and come from ignorance. This shows us that we are breaking social laws. A democratic citizen is a just and democratic citizen who is sensitive to his country and its environment".

"Democratic citizens resemble justice flower. Since justice flowers provide justice and peace among people. If you are a justice flower, you should be proud of yourself. Because in our world, the generation of justice flower is in danger".

Category 3: Democratic Citizen as the Expression of Unity and Solidarity

This category, formed by the students who perceive the democratic citizen as unity and solidarity, appears to be composed of 21 metaphors and 21 students. When we look at the frequency distributions (number of students) of the metaphors in this category, the most commonly used are Helpful citizen (6), Non- sinking ferry (2), water mill (2), family (2), unproblematic country (2), melody (1), treasure (1), world (1), regular army (1), forest (2)Below, there are some students statements in this category are given.

"Democratic citizen is similar to helpful citizen. He has his rights. When the country faces a problem, he helps in unity and solidarity. A democratic citizen is a benevolent citizen. He does not just think about his own rights".

"Democratic citizens are like water mills. Because the turn of the mill depends on a certain mechanism. Just as in a country, there is a need for unity and cohesion in the better functioning and strengthening of the country".

"A democratic citizen is like a family. Because the parents take decisions in unity and together. They make decisions by thinking about their own family and other families. A democratic citizen is like a family because

if we think of our country as a family, the decisions we take will affect everybody and we must take it in unity and togetherness. Only the self-conscious citizen is not a democratic citizen".

Category 4: Democratic Citizen as the Expression of Participation

This category, formed by the students who perceive the democratic citizen as participation appears to be composed of 6 metaphors and 16 students. When we look at the frequency distributions (number of students) of the metaphors in this category, the most commonly used are Voting box (8), vote (3), Turkish Grand National Assembly (2), arbiter citizen (1), Enlightener candle (1), A head of crowd (1)

Below, there are some students statements in this category are given.

"A democratic citizen is like a enlightener candle. He participates in elections and illuminates the future of the country like a candle".
"Democratic citizens are similar to the Turkish Grand National Assembly. It makes decisions for the benefit of the country".

Category 5: Democratic Citizen as the Expression of Equality

It is seen that this category formed by the students who perceive the democratic citizen as equal and equality is composed of 4 metaphor and 14 students. When we look at the frequency distributions (number of students) of the metaphors in this category, the most common ones are equal arm scale (5), citizen who treat equally (5), a watery watermelon (3), sun(1). Below, there are some students statements in this category are given.

"Democratic citizens resemble equal-arm scales. Because the democratic citizen can look at the events objectively. They approach the events equally and focus on the request. He does not try to take sides. Thus, the nearest result for reality can be obtained. In every case, he looks at national issues with an equal approach in elections. This is why democratic citizens are similar to equal-arm scales".

"A democratic citizen is like a watery watermelon. Because, if we think of our country as a watermelon, we, citizens of that country, must exist equally in the watermelon. When slicing the watermelon, it should be divided into equal parts and form a whole within itself. For example, women used to have no right to vote. Along with democracy, women were also given the right to choose. That is, everyone should be given equal rights. Democratic citizens should use their rights in equality".

"A democratic citizen resembles a non-discriminatory citizen. Because discriminating people is not a democratic citizen. Discrimination does not provide convenience for the country. On the contrary, it creates problems. Democratic citizens protect their country's rights. But he does it so equally and without discrimination".

Category 6: Democratic Citizen as the Expression of Patriotism

This category, formed by students perceiving democratic citizens as patriots, appears to be formed by 3 metaphors and 12 students. When the frequency distributions (number of students) of the metaphors in this category are examined, the most frequently used ones are Citizen who protects his homeland (5), Citizen who risks death for his homeland (4), Citizen defending his homeland (3). Below, there are some students statements in this category are given.

"A democratic citizen is a citizen who defends his homeland. Because the democratic citizen knows how to defend the country when he is in a difficult situation. For example; On July 15th, our citizens did not leave their country and flag on the ground. They defend their country".

"Democratic citizen is the citizen who protects his homeland. Because the democratic citizen knows the responsibility to defend his country. For example; On July 15th, he fought for democracy and protected his country. It is unlikely that non-defending people who do not protect their country will be democratic citizens. He who protects and sacrifice himself for the country is a democratic citizen".

"Democratic citizen; is a citizen who risks death for his homeland. Because democratic citizen goes to death without batting an eye if the motherland is the subject".

Category 7: Democratic Citizen as the Expression of Diligence

It is seen that this category formed by the students perceiving the democratic citizen as diligence is composed of 4 metaphors and 9 students. When we look at the frequency distributions (number of students) of the metaphors in this category, the most commonly used are the hardworking citizen (5), ant (4), flower (2), and an old book (1). Below, there are some students statements in this category are given.

"A democratic citizen resembles a hard-working citizen. Because he works for the country and the future without stopping. If he does not, he knows that his country will fall behind. It is up to working to develop the country. It is necessary to work for the homeland first to become a democratic citizen".

"Democratic citizen is similar to ants. It is important for democratic citizens to live together and work for the country. Just like the ants that try not to die in the winter. Democratic citizen should work like ant for his country and his future".

Category 8: Democratic Citizen as the Expression of Responsibility

It is seen that this category which is formed by the students who perceive the democratic citizen as the responsibility and the responsible person is composed of 3 metaphors and 11 students. When we look at the frequency distributions (number of students) of the metaphors in this category, the most frequently used are the responsible citizen (5), language (3), and pencil (3). Below, there are some students statements in this category are given.

"A democratic citizen is like a responsible citizen. Because if you use a right for good things, if you obey the rules of the state and know your responsibilities, then you are a democratic citizen. A democratic citizen is a person who does good works that conform to the rules. In fact, a citizen should be like this, and if he fulfills his responsibilities for his own benefit and the country, he will find peace in society".

"The democratic citizen resembles the language. Because our language knows where to defend what to do. He who knows his democratic citizenship responsibilities is a citizen. A democratic citizen never does anything bad against his democratic citizenship. That's why I resemble a democratic citizen to language".

"Democratic citizens resemble pen. Because the pen writes only if we write. So it is necessary to apply a force to write the text. A pen has to write and this is its responsibility. A democratic citizen resembles a pen because a democratic citizen has a number of responsibilities to his country. If democratic citizens do not do this, there will be no democracy".

4. Conclusion, Discussion and Recommendations

When the metaphors developed by the 8th grade middle school students related to the concept of democratic citizens were examined, a total of 46 metaphors were collected under 8 different conceptual categories. These categories are democracy as expression of freedom, democracy as expression of justice, democracy as expression of unity and solidarity, democracy as expression of participation, democracy as expression of equality, democracy as expression of patriotism, democracy as expression of diligence and democracy as expression of responsibility.

When the opinions of the students are analyzed, it is seen that the metaphors they produce concentrate in the categories of justice and freedom. In this context, with 13 student the most widely used metaphor is "fair citizen". Besides the students produced metaphors mostly in the category of freedom. "Tree" and "free bird" metaphors represented freedom. In the broadest sense, democracy, defined as a system of management in which people are equal and whose fundamental rights and freedoms are protected, is identified with freedom from the past by day-to-day majority (Çeçen, 1995). From these expressions, it is understood that justice and freedom are perceived as indispensable for democracy. The elements that complement this are unity and solidarity, participation, equality, patriotism, diligence and responsibility. It has been seen that the students perceive the concept of democratic citizens as an indispensable element for our country. When the research findings are examined, the students have also touched on distinctive characteristics of democratic concepts such as choice and decision making. Decision-making, participation and election are the most important distinguishing features of democracy. In the study of Sadık and Sarı (2012), students also

explained democracy mostly with the concepts of equality, freedom and justice. It has been seen that pupils correctly perceive democratic citizens and their integral elements in general.

To briefly summarize the situation in the direction of these findings, it is observed that the students are knowledgeable about the democratic citizen concept and the elements that integrate it, but only because they cannot find the necessary environment to live it, this is all they have. First of all, students should gain democratic attitude and behavior. This can only be possible with managers and teachers who have adopted democratic principles and are able to apply these principles to life. (Gömleksiz and Akar-Vural, 2006). Teachers here have a lot of duty. The democratic citizen concept should be taken in a part of our life and it should be internalized. In the field of effective citizen learning in the social studies curriculum of 2017, the democratic ways of influencing the management by learning the ways of participation of the students in social services and the different official activities take place. (MEB, 2017)

There must be an environment in which students can express their opinions easily in the classroom. Patrick (2003) stated that for the effective teaching of democracy in schools, students should be allowed to teach contemporary events to discuss in a comfortable class environment. Placing controversial issues in the classroom will contribute to the development of the students' natural democratic values such as equality, freedom, human rights and self-control (Levitt and Longstreet, 1983). If we want our students who are our future to grow up as democratic citizens, we have to give our lessons with more democratic methods. This will create a vivid example of our students. It would not be effective if we speak of democratic citizens to students as only formal information. However, students will contribute more positively if they create various projects and especially situations that require participation.

References

Aslan, M., Bayrakçı, M. (2006). Metaforik düşünme ve öğrenme yaklaşımının eğitim-öğretim açısından incelenmesi.[An examination of metaphorical thinking and learning from educational view]. *Milli Eğitim Dergisi*, *171*, 100-108.

Botha, E. (2009). Why metaphor matters in education. *South African Journal of Education*, *29*, 431-444.

Çeçen, A. (1995). *İnsan hakları*. [Human rights] Ankara: Gündoğan Yayınları.

Goldstein, L. B. (2005). Becoming a teacher as a hero's journey: Using metaphor in preservice teacher education. *Teacher Education Quarterly*, *32*(1), 7-24.

Gömleksiz, M., Akar-Vural, R., (2006), "Nasıl bir öğretmen yetiştiriyoruz: otoriteryenizm ve ayrımcılık üzerine bir araştırma", Uluslararası Öğretmen Yetiştirme Sempozyumu, Çanakkale: On Sekiz Mart Üniversitesi, 4-6 Mayıs 2006.

Gözütok, D. (1995). *Öğretmenlerin demokratik tutumları*, [Teachers' democratic attitudes] Ankara: Türk Demokrasi Vakfı Yayınları.

Güven, A. (2008) Demokratik vatandaşlık ve tarih eğitimi. [Democratic citizenship and history education] *Atatürk Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, *12*(2), 1304-4990.

Kaldırım, E. (2005). İlköğretim 8. sınıf öğrencilerinin demokrasi algıları, [Democratic Perceptions of Primary 8th Grade Students] *GÜ, Gazi Eğitim Fakültesi Dergisi, 25*(3), 143-162.

Kuş, Z.& Çetin,Z.(2014). İlköğretim öğrencilerinin demokrasi algıları. [Democratic perceptions of primary school students] *Kuram ve Uygulamada Eğitim Bilimleri, Educational Sciences: Theory & Practice, 14*(2), 769-790. doi: 10.12738/estp.2014.2.1493

Lakoff, G., Johnson, M. (1980). *Metaphors we live by*. Chicago : The University of Chicago Press.

Levitt, G. A., & Longstreet, W. S. (1983). Controversy and the teaching of authentic civic values. *The Social Studies*, *84*, 142-148.

MEB(2017), T.C. Milli eğitim bakanlığı sosyal bilgiler öğretim programı(ilkokul ve ortaokul 4,5,6,7. sınıflar) [Republic of Turkey ministry of national education social studies curriculum (primary and secondary grades of 4th, 5th, 6th, 7th)] Retrieved from http://mufredat.meb.gov.tr/ 20.06.2017

Patrick J. J. (2003). Essential elements of educatıon for democracy: What are they and why should they be at the core of the currıculum in schools? Retrieved from http://www.civiced.org/pdfs/EEOEforDemocracy.pdf 19.06.2017

Sadık, F., Sarı, M.(2012) Çocuk ve demokrasi: İlköğretim öğrencilerinin demokrasi algılarının metaforlar aracılığıyla incelenmesi. [Children and democracy: analysis of the perception of democracy by primary school students through metaphors.] *Uluslararası Cumhuriyet Eğitim Dergisi Cumhuriyet International Journal of Education, 1*(1), 48-62.

Taylor, W. (1984). *Metaphors of education*, London: Heineman Educational Books Ltd.

Uygun, O. (2003), *Demokrasinin tarihsel, felsefi ve ahlaki boyutları*, [Historical, philosophical and moral dimensions of democracy] Ankara: İnkılap Yayınları.

Yıldırım, A., Şimşek, H. (2006) *Sosyal bilimlerde nitel araştirma yöntemleri*. [Qualitative research methods in social sciences]. Ankara: Seçkin Yayıncılık

International Journal of Psychology and Educational Studies

www.ijpes.com

Management of Anger with Anger Reversal Technique among School Going Adolescents

Sella Kumar[1]

[1]AsiaN Institute of Psycho-Diagnostics and Behavior Research, Tamil Nadu, India

ARTICLE INFO

ABSTRACT

An experimental investigation was attempted to examine the effectiveness of Anger Reversal Technique to manage anger among adolescent school students. One group pretest post-test experimental design was adopted. Speilberger's State Anger Scale was administered to assess the level of anger. A random sample of 50 male and 50 female adolescents were drawn from a selected higher secondary school located in Gondar Town, Ethiopia. Selected participants were randomly assigned to experimental and control groups. Anger reversal technique was administered for a period of 45 minutes/day for 45 consecutive days. A post test was conducted to ascertain the efficacy of anger reversal technique. Repeated measures ANOVA was worked out with SPSS 17 version. The result revealed that there is a significant decrease in the level of anger after anger reversal technique among adolescent students. Therefore, this intervention technique is effective in managing anger it can be adopted and employed to control anger among school students.

Keywords: Efficacy, Anger, Anger reversal technique, Adolescence, School students

1.Introduction

Anger is mostly identified and underlying factor for any type of criminal act or violence. Anger can be interpreted as a subjective emotional state comprising of increased physiological arousal and cognition antagonism. Anger state is identified as an impulse to be and may be casual determinant of aggressive or violent behavior, recognized as natural and adoptive emotional state. Anger has been studied in a wide range on its experience and expression in different populations (Kassinove, 1995). The concept of anger is an emotional state that consists of feelings, varies in intensity, from mild irritation or annoyance to intense fury and rage (Speilberger, 1988). Although "hostility" involves feelings of anger, this concept of connotation has the complex set of attitude that motivate aggressive act directed towards destruction of objects or people. Similarly, anger and hostility can also be referred as feelings and attitudes whereas the concept of 'aggression' generally implies destructive or punitive behavior directed towards other persons or objects. Anger is a form of frustration and violence is a form of aggressive behavior manifested in adolescent with intimate relationship and exhibited during dating situations (Mohan, 2003). Uncontrolled anger causes serious problems to others and also to one who expresses and experience. Hence, managing anger is much important and some people do not control anger due to factors such as biological, psychological or situational that is inclined to become aggressive personality. Eventually, uncontrolled anger produce ill effects to an individual's physical, psychological and social functioning.

[1] Corresponding author's address: AsiaN Institute of Psycho-Diagnostics and Behaviour Research, Coimbatore –India.
Telephone: +919566707646
e-mail: aipdbr@yahoo.com

Individuals who are well-equipped to deal with the emotional problems may express anger in an adaptive manner and avoid facing varieties of problems. Aggression, depression, and suicide are a few of the major consequential problems related to anger. However, it is not limited to the understanding of the impact of anger, further it is also important to understand the reason why youth are more likely to experience anger. Positively or negatively, social support, bullying, family interactions, personality, and home environment have been identified as contributing factors for encountering anger (Navis, 2012).

The National Center for Education Statistics (2010) reported that about 1.9 million crimes occurred in elementary and secondary schools throughout the nation, meaning about 40 students per 1,000 were victims of some type except bullying or cyber-bullying. According to institute of education and science, , 28 % of students ages 12-18 reported feeling bullied by one or more of their peers in 2009. Anger is also linked with other serious problems like depression, suicide, and substance abuse (Daniel, Goldston, Erkanli, Franklin, & Mayfield, 2009). Problems of this magnitude often affect a student's ability to meet their full potential. Deffenbacher, Lynch, Oetting, and Kemper (1996) suggest that individuals with high trait anger are more likely to have interpersonal problems, academic difficulties, and conflict in their jobs. On the other hand state anger is also found among youths originate due to situational factors such as school environment, peer group interaction, home culture, conflict between elders, frustration, failures etc. Frequent and persistent exposure to such situations may instill in an individual to act aggressively.

Excessive anger can foster health problems, may damage interpersonal relationships, impair the ability to work productively, and may lead to or exacerbate health problems (Averill, 1982; Novaco, 1976; Scherwitz & Rugulies, 1992). Skill training and relaxation methods were most commonly employed traditional techniques in treating individuals with anger and its related problems (Brondolo, 1997).

Anger management training can decrease the aggressive behavior of at-risk students in the short-term. Students trained in anger management have been found to decrease their disruptive and aggressive behaviors both at home and in the classroom, and exhibited greater self-control (Feindler, Marriot, & Iwata, 1984).

Lollis, Johnson, Antoni, and Hinkle (1996) also reported anger can be associated with high risk behavior. Anger is a negatively toned emotion, subjectively experienced as an aroused state of antagonism towards someone or something perceived to be the source of an aversive event. Anger, aggression and hostility have been found to be personality features of most of the chronic illness. Anger directed towards others may be expressed in physical acts such as assaulting other persons, destroying objects and slamming doors, verbal threats and the extreme use of profanity (Speilberger et al., 1983). Other than these behavioural manifestations poor anger control affects normal social functioning. Anger regulation is one amongst the cognitive behavioural skills to be taught for effective functioning in the social environment and to manage anger provoking situations. Learning anger regulation skill will help individual to exhibit anger reaction to appropriate situation and also in a healthy manner.

Deficits in anger regulation often have a negative impact on their educational, vocational, residential, and social functioning (Black & Novaco, 1993). More specifically, individuals engage in service oriented professions are vulnerable group easily express or outburst anger. Anger difficulties can also result in significant problems for hospital staff and service providers, such as increased risk of injury, increased financial cost (e.g., workers' compensation claims), decreased job satisfaction, and high employee turnover (Taylor, Novaco, Gillmer, & Thorne, 2004). Uncontrolled and unidentified anger has direct impact on normal physiological functions and has the risk of life threat and social destruction. And also this may lead to the development of anti-social personality. Persistent anger expressive behavior jeopardizes healthy social interaction and interpersonal communication in the family, workplace and society.

Explicit excessive anger expressions such as biting teeth, shouting, attacking, kicking, feeling irritation, high pitched voice, excessive secretion of some hormones, elevation in blood pressure, heart rate, dilution of eye, increasing pulse rate are the implicit emotional reactions may cause life risk. Exaggerated anger or aggressive behaviour has been posing great threat to the development of the individual. The breathing pattern and the skeleto-muscular reactions elicited along with the expression of the emotion of anger, when rehearsed in a controlled manner can help gain voluntary control of the emotion of anger (Ganesan & Ganesan, 1985).

Anger control mechanism can be taught to individuals to cope up with situation when he /she experience anger and even the individuals with predisposed characteristics frequently elicited anger reactions can be treated with behavior modification technique/ behavior therapy. A specific or combination of behavior therapies based on learning principles has been applied and achieved positive outcome in alleviating behavioural problems such as anxiety, phobia, psychosomatic disorders, sexual dysfunctions, anger, eating disorders, stress, adjustment problems etc.

Anger management ability is one such possible mediating variable and is sometimes a component of treatment programs for violence offenders (Catherine A. Turcotte-Seabury, 2010). Modified treatment interventions based on the theoretical underpinnings of Novaco's model of anger (Novaco, 1976) were found beneficial in numerous case studies and clinical groups (Benson, Johnson- Rice, & Miranti, 1986; Murphy & Clare, 1991; Rose, 1996).

Puskar, Bernardo, Haley, & Hetager Stark (2008) found that the more negative life events an adolescent experiences, the more likely they are to experience and express anger and also adolescents who had higher perceived family and teacher support were less likely to express anger.

Cognitive behavioural approach revealed a significant improvement in anger regulation and decrease in client's anger behavior (Jones, et al, 2006).

Mohan and Bedi (2010) found HIV/AIDS positive individuals scored relatively higher in state anger and trait anger rather than state anger alone. Anger management training comprising number of possible components that includes relaxation training, social skills training and cognitive restructuring, and that these various components may have differential effects on the different dimensions of anger (Edmondson & Conger 1996).

Aggression is a learned behavior, anger control training is also employs a learned behavior that reduced aggression. Anger management skill training enhanced social adjustment among students and enhanced students' mental health (Foumany & Slelahi, 2013); decreases anger and aggressive behavior and it resulted increased social adjustment (Arefi, 1999; Navidi , 2006; Maleki, 2006). Other studies by Kellner et al. (1995), Herrmann et al., (2002), and Burns et al. (2003) revealed anger control training decreased aggression and ultimately social adjustment and social skills improved.

Rafezi (2004) revealed anger control training has a permanent and greater influence on aggression reduction. Anger management training reduces violence in couple's relationship and prevents mental and physical consequences of violence (Mohammadi, 2006).

Management of Exaggerated Anger

The intensity of anger is disproportionate and exaggerated to the stimulus and lasts for more than 3 minutes. Any thought, word or action that hurts "self" or "others" is indicative of exaggerated anger. Practice of this technique helps the individual to regulate and extinguish exaggerated anger and short temperedness. Persons having suicide ideation (or attempt) or semination, homicidal attempts or rumination, injurious (self or other) behaviour, non-assertive behaviour, depression, social withdrawal, inferiority complex can benefit with this technique (Ganesan & Ganesan, 1985).

This piece of investigation intended to identify the students with high level of anger by securing above average score in the anger assessment scale and impart anger reversal technique to manage anger and at last to evaluate the efficacy of this intervention. This was examined among adolescent school students, since this stage is a crucial period in the developmental stage. Specifically, adolescents are vulnerable to stress and strain and they encounter role confusion which is referred as a crucial period.

2. Method

2.1. Design

One group pre-test post-test control group design was employed to evaluate the efficacy of anger reversal technique to reduce anxiety.

2.2. Participants

Among 500 adolescent high school students population a sample of (N=100) students were recruited for the study. Among them 52 were boys and 48 were girls. To maintain ethical standards, an informed consent was obtained from the participants. Followed by the level of anger was assessed through administering a questionnaire. Then after equal number of participants were randomly assigned to training group and control groups.

2.3. Measures

Speilberger's State Anger Scale (1983) was administered to measure the level of state anger. The questionnaire consist of 10 items of statements measures the level of state anger with 4 point likert scale namely Almost Never, Sometimes ,Often and Almost Always.

Scoring: The scores are given as Almost Never =1, Sometimes =2, Often =3 and Almost Always = 4. The minimum possible score is 10 and maximum is 40, higher the score denotes higher the state anger and lesser the score is less anger.

2.4. Anger Reversal Technique

This technique was developed by Ganesan (1985). This technique helps in regulating one's own anger level. Practicing the behavioural rehearsal exercise described and recommended below by the author helps to manage anger. The steps of this technique as follows

Step - I: Be seated on a chair, stool or bench - press your feet strongly over the floor. Experience the muscle tension in your calf muscles and thigh muscles.

Step - II: Clench your fists, with the elbows bent and forearms parallel to the floor. Experience the muscle tension in the fists, forearms, upper arms, shoulders and chest.

Step - III: Bite the teeth. Experience the tension in the jaw muscles.

Step - IV: Open the eyes as widely as possible, raise the eyebrows and stare straight, in line with your eyes.

Step - V: Bite the teeth and breathe through the teeth and nostrils, noisily and swiftly.

Step - VI: Give a command to yourself as follows: Call yourself by 'your name' and say for example: "Ram / Sita – Get ready and get angry" - Follow this by adopting all the above six steps (Steps I - VI) simultaneously. Maintain this behaviour for 15 seconds.

Step- VII: Call yourself by your 'name'; again and say for example: "Ram or Sita – Reduce anger and relax" - Follow by simultaneously closing your eyes and lips, breathing deeply, relaxing your fingers and toes and hanging the head down. Experience the relaxation for 45 seconds.

Repeat the steps VI and VII, ten times.

Follow this by total relaxation of the body by lying down on the back, keeping the hands by the sides with palms facing up, fingers let loose, and legs kept apart with 12 inches between heals. Relax the fingers and toes and slowly exhale and inhale for a period of 15 minutes.

This above procedure develops a voluntary control over once's ability to "switch on", "increase", "stop" and "reverse" anger related psycho-neuro-muscular-endocrinal responses. This technique also helps in developing an awareness of one's feeling of anger, and the client starts observing, and experiencing of the psychological and physiological responses related to anger. One's emotions can be regulated with high focused conscious and awareness. This technique can be used effectively in helping people suffering from the problem of shyness.

2.5. Technique for Change of Direction of Aggression

This technique convert intra punitive aggression into extra punitive, intra punitive aggression refers to aggression directed towards oneself in order to hurt him / her. This endanger even from simple "self-hurt" to

serious problems like "suicide". These kind of behavioural manifestations are psycho-neuro-endocrinologically conditioned. Therefore, practicing this technique as reversing these behaviours will counter conditioned and subsequently previously conditioned responses are extinguished. Subsequently, new connection strength is established between stimulus and response (Ganesan & Ganesan, 1985).

3. Results

Table1. Shows the significant difference between experimental and Control groups before Anger Reversal Technique.

Groups	N	Mean	SD	Std. Error Difference	Mean Difference	t	df	Sig.
Experimental	50	20.96	4.91	1.03	.70000	.673	98	.117
Control	50	20.26	5.46				96.949	

The above table indicates the significant difference between experimental and control groups before anger reversal technique. The result indicates there is no significant difference between experimental and control groups before anger reversal technique (t=0.67, p>0.05). Before application of anger reversal techniques both group were homogeneous. Hence, the hypothesis "There is no significant difference between experimental and control groups before anger reversal technique" is accepted.
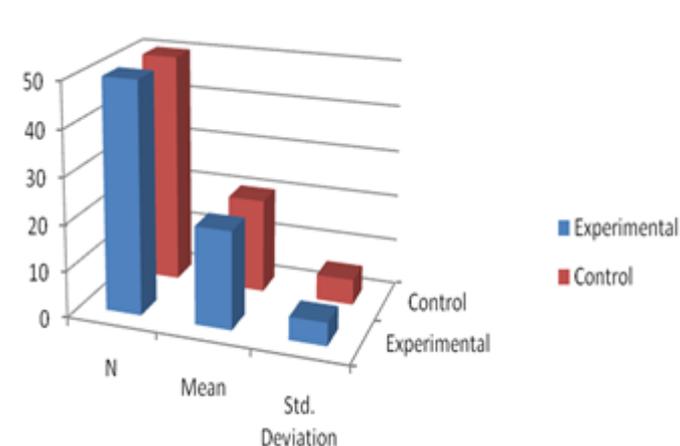

Figure 1.

Table 2. Shows the significant difference in the Experimental group before and after anger reversal technique

Conditions	Mean	N	SD	Std. Error Mean	t	df	Sig. (2-tailed)
Before	20.9600	50	4.91960				
				1.458	3.085	49	0.003
After	16.4600	50	9.60274				

The above table shows the significant difference in the experimental group before and after anger reversal technique. The result reveals that there is a significant difference between before and after reversal technique

(t=3.08, p<0.01). Hence, the hypothesis "There is a significant difference in the experimental group before and after anger reversal technique" is accepted.
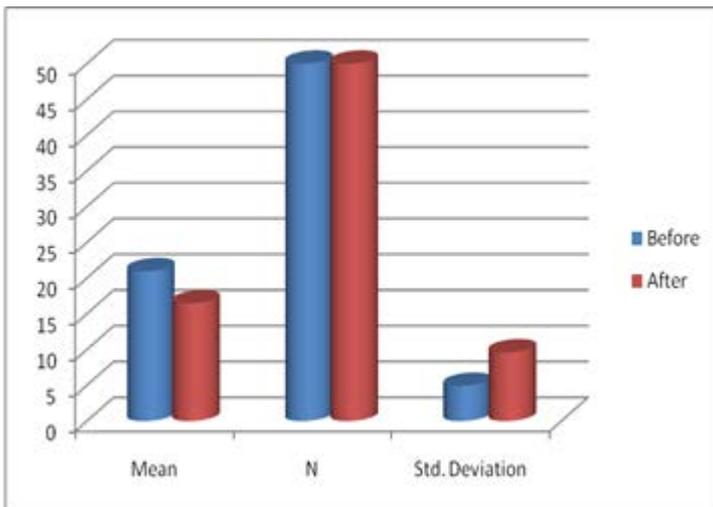

Figure 2.

Table 3. Shows the significant difference before and after anger reversal technique among control group

Conditions	Mean	N	SD	Std. Error Mean	t	df	Sig. (2-tailed)
Before	20.26	50	5.46159				
				.28376	-.423	49	.674
After	20.38	50	4.35604				

The above table shows the significant difference in the control group before and after anger reversal technique. The result reveals that there is no significant difference before and after anger reversal technique (t=0.423, p>0.05). Hence, the hypothesis, "There is no significant difference in the control group before and after anger reversal technique" is accepted.
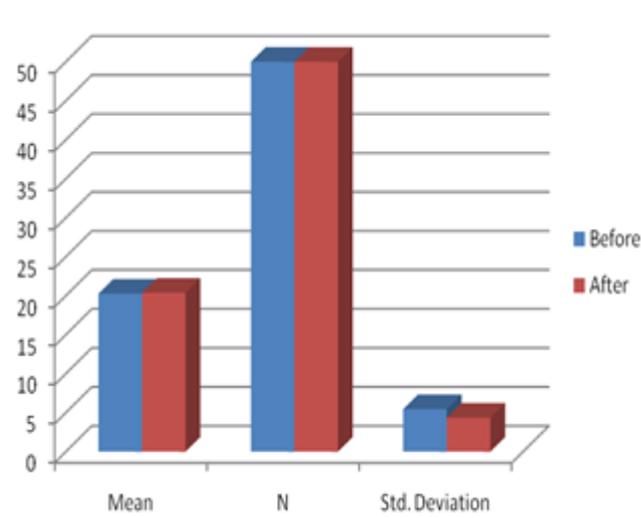

Figure 3.

Table 4. Shows the significant difference between experimental and control group after anger reversal technique

Groups	N	Mean	SD	Std. Error Mean	Mean Difference	t	df	Sig.
Experimental	50	16.4600	9.60	1.35				
					-3.92	-2.62	98	.305
Control	50	20.3800	4.35	.616				

The above table shows the significant difference between experimental and control groups before and anger reversal technique. The result reveals that there is no significant difference in the level of anger after anger reversal technique (t=2.62, p>0.05). Hence, the hypothesis "There is no significant difference between experimental and control groups after anger reversal technique" is rejected.
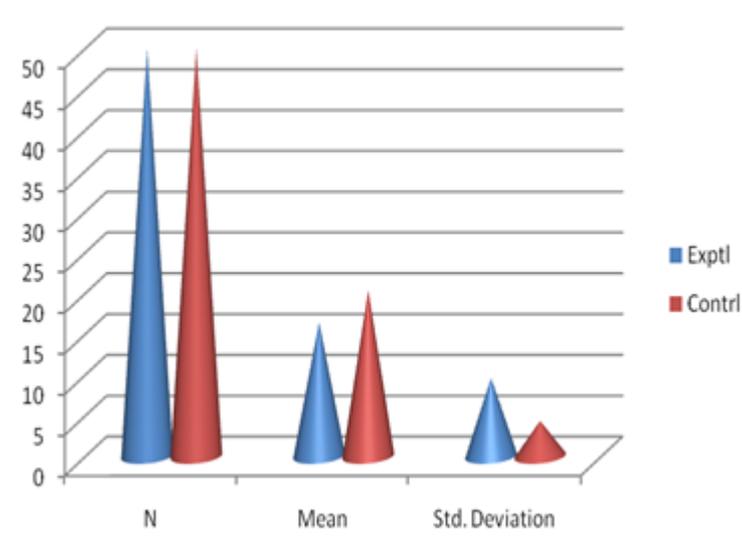

Figure 4.

Table 5. Shows the significant difference between pre-test and post-test among experimental and control groups

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Effect Size
Anger	239.805	1	239.805	8.688	.004	.081
Anger x Groups	266.805	1	266.805	9.667	.002	.090
Error	2704.890	98	27.601			

The Mean and Standard Deviation is presented in Table 2. There is a significant effect of anger reversal technique on anger among experimental group participants F (1, 98) = 8.688, p<.004). Experimental group involved in anger reversal technique were found to have a decreased level of anger in the post test score. There is a significant interaction effect between over-time and group F (1, 98) =9.667, p<.002). Thus, H1 "There is a significant decrease in the level of anger after anger reversal technique" is accepted.

4. Discussion

Anger is a universal and common problem considered as an individual and social problem that indulges normal behavior and social functioning. Further, anger is negatively associated with general wellbeing, social violence and normal social functioning. Hence, anger management skill is required for individuals who

express anger in an extreme or uncontrollable manner, higher in the level of anger, indulge health and develop anger related problems. high level of anger is identified in specific community or who are vulnerable to get anger related physical, psychological and social problems. School aged students during adolescence stage are one among the vulnerable groups found to have high anger and aggressive behavior. Anger is also a predisposed characteristic emotional reaction and also a learnt predisposition producing negative behavior effect. Speilberger classified anger into two i. e. trait and state. State anger may be induced due to situational factors such as interpersonal interaction, classroom atmosphere, stress, frustration, failures and conflicts whereas trait anger can be expressed in terms of biologically predisposed characteristics. Unidentified and untreated anger may cause disruptive consequence in intrapersonal, interpersonal, anger regulation and anger control behaviours of an individual. Anger produces psycho-physiological changes i.e hormonal imbalance, excessive secretion of certain bio chemicals, increased blood pressure, heart rate, pulse rate, galvanic skin response, rapid actions and functions of organs that elicit juices and hormones endanger to physical health. Conditionings to such behavioural changes and repeated exposure to anger inducing situation causes developing aggressive personality characteristics. Counter conditioning or learning new skills to manage or prevent anger consequences will help individual to manage such problem situations effectively. Behavioural trainings are theoretically and experimentally proved techniques frequently employed by behavior therapist to manage anger next to pharmacological therapies. Many behavioural therapeutic techniques have been employed by scholars to treat anger likewise anger reversal technique is utilized in the present study to suppress anger related reactions. Psycho-physiologically conditioned behaviors can be reversed or transferred making client to practice or relearn certain skills like relaxation training, social adjustment skill, anger control and regulation skill to adapt controlling anger and defeat anger inducing factors. The present study revealed that there is a remarkable change was achieved in the level of anger after anger reversal training. The result is consistent with the study conducted by (Ganesan, 1985); (Ganesan & Ganesan, 2004); (Feindler, Marriot, & Iwata, 1984); (Foumany & Slelahi, 2013); (Arefi, 1999; Navidi , 2006; Maleki, 2006); Kellner et al. (1995), Herrmann et al., (2002), and Burns et al. (2003).

5. Conclusion

There is a significant difference between pretest and post test scores of anger. The pretest state anger score was found to be high compared to post-test state anger score before anger reversal technique. Therefore, anger reversal technique has contributed in decreasing the level of state anger. The level of state anger can be altered employing specific behavioral training. Educating and practicing such behavioural interventions will help individuals to overcome from anger problem. Learning anger management skills enhances one's social skill, self-awareness, emotional self-regulation and performance. Anger identification and anger management is a most notable psychological functions need to be highly considered especially in the adolescent age group to prevent self and social destruction.

6. Recommendations

Behavioural scientists may focus on identifying anger across age, gender, socio economic status and other psycho-physiological factors.

Anger reversal technique can be applied in other population and different study setting.

A similar study can be conducted with large size of sample with different population to observe the significance of the intervention.

Educational institutions and its administrators may take initiation to implement such periodical training programs for early identification and management of anger and also to prevent ill effects of anger.

7. Implication

Anger is an individual and social problem need to be indentified and managed.

Adolescents are vulnerable to get anger quickly and prone to express aggression that causes anger related ill effects.

Behavioural trainings/ interventions can help solve problems arises due to anger.

Anger reversal technique is a behavioural intervention was found to be effective in decreasing ager among adolescent school students.

Unidentified and untreated anger may develop aggressive personality characteristics. Therefore, employing such behavioural interventions will reduce anger and related problems.

References

Arefi, M. (1999). Study of relational aggression and the association of it with emotional-social adjustment of elementary   school students in Shiraz. Educational psychology master's thesis. Faculty of Psychology and Educational Sciences, Shiraz University.

Averill, A. (1982). Anger and Aggression. An essay on emotion. NewYork: Springer-Verlag.

Benson, B., Johnson-Rice, C., & Miranti, S. V. (1986). Effects of anger management training with mentally retarded adults in group treatment. *Journal of Consulting and Clinical Psychology, 54,* 728-729.

Burns, M., Bird, D., Leach, C., & Higgins, K. (2003). Anger   management   training: the   effects   of structured program on the self-reported anger experience of   forensic inpatients with   learning disability. *Journal of psychiatric and mental health nursing. 10,* 569-577. doi:10.1046/j.1365-2850.2003.00653.x

Brondolo, E. (1997). Exposure based treatment for anger related Problems: Focus on the feeling. *Cognitive and Behavioural Practice, 4,* 75-98.

Black, L., & Novaco, R. W. (1993). Treatment of anger with a developmentally handicapped man. In R. A. Wells, and V. J. Giannetti (Eds.) Casebook of the brief psychotherapies (pp. 143-158). New York: Plenum Pub. Corp.

Catherine A. Turcotte-Seabury. (2010). Anger Management and the Process mediating the Link between Witnessing Violence between Parents and Partner Violence. *Violence and Victims, 25(3),* 306-318. doi: 10.1891/0886-6708.25.3.306

Daniel, S., Goldston, D., Erkanli, A., Franklin, J., & Mayfield, A. (2009). Trait anger, anger expression, and suicide attempts among adolescents and young adults: a prospective study. *Journal of Clinical Child & Adolescent Psychology, 38*(5), 661-671. doi: 10.1080/15374410903103494

Deffenbacher, J., Lynch, R., Oetting, E., & Kemper, C. (1996). Anger reduction in early adolescents, *Journal of Counseling Psychology, 43*(2), 149-157.

Edmondson, C. B., & Conger, J. C. (1996). A review of treatment efficacy for individuals with anger problems: Conceptual, assessment and methodological issues. *Clinical Psychology Review, 16,* 251–75.

Foumany, G. H. E., & Slelahi, J. (2013). The Effects of Anger Management Skills Training on Aggression, Social Adjustment, and Mental Health of College Students. *Journal of Educational and Management Studies, 3*(4), 266-270.

Feindler, E. L., Marriot, S. A., & Iwata, M. (1984). Group anger control for junior high school delinquents. *Cognitive Therapy & Research, 8*(3), 299-311.

Ganesan, V., and Ganesan, G. (1985). Anger Reversal Technique. Unpublished paper, Bharathiar University, Coimbatore.

Ganesan, V. (1985). Development of Anger reversal technique. An unpublished Dept. of Psychology, Bharathiar University, Coimbatore-46, India.

Herrmann, S., & Mcwhirter, G. (2002). Anger and aggression management in young adolescents. Available at: www.india.edu,scfech, anger managment.pdf. Accessed 16 May.

Institute of Education Sciences (n.d.). Fast facts. National Center for Educational Statistics. Retrieved from: http://nces.ed.gov/fastfacts/display.asp?id=49.

Kassinove, H. (eds). (1995). Anger Disorders: Definition, diagnosis and Treatment, Taylor and Francis, Philadelphia.

Kellner, M. & Tutin, G. (1995). A school-based anger management for developmentally disabled high school students. *Adolescents, 5*(6), 48-49.

Lollis, C. M., Johnson, E. H., Antoni, M. H., and Hinkle, Y. (1996). Characteristics of African-Americans with multiple risk factors associated with HIV/AIDS. *Journal of Behavioral Medicine, 19*(1), 55-71.

Maleki, S. (2006). Effect of group skills training of anger management on adolescent's aggression in Karaj region. Nurse   Management   Master's thesis, University of Tehran.

Mohan, V., & Bedi, S. (2010). Extraversion, Neuroticism, Anger and Self-Esteem of HIV Positive Youth. *The Journal of Behavioral Science, 5*(1), 60-74.

Mohan, V. (2003). Developing skills: self-awareness, decision making, interpersonal, values analysis and clarification. In B. Prakash (Ed.). Adolescence and life skills, (pp. 190-209). Common Wealth Youth Program, Asian Center, Common wealth Secretariat. New Delhi: Tata McGraw Hill.

Mohammadi, S. (2006). The effectiveness of anger management training on lessening violence patterns in couples relationships, those who referred to the dispute resolution in Qazvin. Master's thesis, Tarbiat Moallem University of Tehran, Faculty of Psychology and Educational Sciences.

Murphy, G., & Clare, I. (1991). MIETS: A service option for people with mild mental handicaps and challenging behaviour or psychiatric problems: II. Assessment, treatment, and outcome for service users and service effectiveness. *Mental Handicap Research, 4(2),* 180-206.

Navis. S. B. (2012). Causes and Effects of Adolescent Anger. A Capstone Project in partial fulfillment of the requirements for the Masters of Science Degree in Professional Development at Winona State University.

Navidi, A. (2006). Effects of anger management training on adjustment, self-regulation, and general health in adolescents of 15 to 18 years old. PhD thesis, University of Allameh Tabatabaii, Faculty of Psychology and Educational Sciences.

Novaco, R. W. (1976). The functions and regulation of the arousal of anger. *American Journal of Psychiatry, 133,* 1124-1128.

Puskar, K., Bernardo, L., Haley, T., & Hetager Stark, K. (2008). Anger correlated with Psycho-social variables in rural youth. *Issues in Comprehensive Pediatric Nursing, 31,* 71-87. doi: 10.1080/01460860802023513

Rafez, Z. (2004). Effect of anger control training on aggression in 15 to 18 year old high school girls in Tehran. Clinical psychology master's thesis, Tehran University of Social Welfare and Rehabilitation.

Rose, J. (1996). Anger management: A group treatment program for people with mental retardations. *Journal of Developmental and Physical Disabilities, 8*(2), 133-150.

Scherwitz, L., & Rugulies, R. (1992). Lifestyle and hostility. In H. Friedman (Eds). Hostility, Coping and Health. (pp.77-98). Washington, D.C: American Psychological Association.

Spielberger, C. D., Jacobs, G., Russell, S., & Crane, R. (1983). Assessment of anger: The State-Trait Anger Scale. In J. N. Butcher and C. D. Spielberger (Eds.), *In Advances in Personality Assessment, 2,* 159-187. Hillsdale, NJ: Lawrence Erlbaum Associates.

Spielberger, C. D., Jacobs, G., Russell, S., & Crane, R. (1983). Assessment of anger: The State-Trait Anger Scale. In J. N. Butcher and C. D. Spielberger (Eds.), *In Advances in Personality Assessment, 2, 159-187*. Hillsdale, NJ: Lawrence Erlbaum Associates.

Spielberger, C. D. (1988). Manual for the State-Trait Anger Expression Inventory (STAXI). Tampa, FL: Psychological Assessment Resources.

Taylor, J. L., Novaco, R.W., Gillmer, B., & Thorne, I., (2004). Assessment of anger and aggression in male offenders with developmental disabilities. *Psychological Assessment, 16,* 42-50. doi: 10.1037/1040-3590.16.1.42

PES

Moral Maturity Levels of Imam Hatip High School Students: The Case of Ortakoy District

Naciye Güven

Kırıkkale University, Kırıkkale, Turkey

ARTICLE INFO

ABSTRACT

The aim of this research is to determine the moral maturity levels of the Imam Hatip High School students. It is also to analyze whether the level of moral maturity differs according to gender, class level and place they stayed. The study was carried out on 220 students of the İmam Hatip High School in the district of Ortakoy in Aksaray in the academic year 2016-2017. The study is a descriptive screening model. The " Moral Maturity Scale " developed by Şengün and Kaya (2007) and the " personal information form " created by the researcher were used as data collection tools in the study. Scale is a likert type measure of 66 items. The reliability of the scale is 0.89. As a result of the study, it was determined that 55 % of the Imam Hatip High School students had a moral maturity level above the average. In addition, gender, class level, and place they stayed did not make a significant difference on the level of moral maturity.

1. Introduction

From the moment human beings are born, it is not only affected by the physical environment but also by the social environment. The society in which he lives does not only introduce some events to him, but also acquires a form of thought and new values through language. He teaches some rules that must be followed. These collective norms that are logical or pre-logical constitute morality (Şemin, 1979). Although moral precedence is a topic of philosophy and religion, it has recently become a subject of study of many branches of science such as politics, law, sociology, anthropology, psychology, neurology, along with the development of other sciences. This is a moral interdisciplinary concept, and each discipline has tried to define its moral concept from its own frame (Ünal, 2016). Most development theorists regard the morality as the fundamental dimension that determines adaptation to the individual's environment. Although the definitions of moral behavior and moral development of various theorists are quite different, the common thought in these definitions is that morality is regarded as a function that helps the individual to achieve collective harmony. Morality not only helps the individual to adapt, but also helps the community to maintain its existence (Çelen, 2000).

Moral development is closely related to the individual's spiritual development, mental development and personality formation (Kaya, 1993). A young's understanding of morality is not the same as a child's understanding, nor is it the same as a mature adult's moral understanding. There is an evolution from early childhood to adulthood in terms of what is right and wrong, and what it means to be a good person. Moral development is about ethical behavior, emotions, and changes in thinking over time (Gündüz, 2000).

Moral maturity refers to the sum of ethical qualities that give the richest, most necessary, and fullest meaning to the state of being competent and top in terms of moral feelings, thoughts, judgments, attitudes and behaviors. Moral maturity is the level of excellence that enables the individual to feel any immorality and deviation in his feelings, thoughts, judgments, attitudes and behaviors immediately in his conscience. It is expected that an individual with a moral dimension is a good person who is reliable, responsible, respectful, equitable, self-controlling, empathic, and a good citizen who fits all laws and rules (Şengün and Kaya, 2007). According to Topçu (2016), the most important task in moral education is to be a model. He underlines that teachers and administrators should be good models to students. Indeed, the school has more influence than the family in moral education. He emphasizes that this education should be given to young people with love, not fear.

Imam Hatip High Schools, which is one of the educational institutions in Turkey, which implements both vocational and higher education preparatory programs, is an important educational institution with increasing number of students serving in the field of religious education and training (Özüdoğru, 2013; Aslan 2013). The history of Imam Hatip High Schools are based on the Tevhid-i Tedrisat Law, which was adopted on March 3, 1924, shortly after 5 months after the declaration of the Republic on October 29, 1923. Despite years of being closed until today, it always maintains its place in the Turkish national education system. 40% of the curriculum consists of vocational lessons and 60% consists of culture and science lessons. This rate has been almost preserved from the first day until today. In addition to the lessons taught in general high schools, professional religious lessons are taught in Imam Hatip High Schools (Karateke, 2010). The inclusion of religious and secular lessons in the curriculum of Imam Hatip schools serves to integrate general education and religious education in these schools. In this way, there is presented an alternative to society that does not want children to be deprived of general education while they are in religious education, does not find religious instruction in general education adequate, or cares about the environment and religious atmosphere of Imam Hatip schools. In addition, this curriculum structure allows the students who come to these schools not only to focus on the field of religious services but also to educate them on different areas of the universities and to create alternatives to them. At the same time, it allows the students and graduates of these schools to easily adapt to the society (Aşlamacı, 2014).

The concept of moral maturity is becoming even more important in Imam Hatip High Schools which adopt a model of education and training not only for Turkey but also for all Islamic societies in terms of value given to religious lectures as well as culture and science courses. These schools are particularly important in gaining the desired behavior to the students in relation to education.

The aim of this research is to determine the level of moral maturity of the students of Imam Hatip High School and to show whether this level shows differences in terms of different variables.

In response to this general aim, the following questions were sought:

1. What is the moral maturity level of the students of Ortakoy Imam Hatip High School?

2. Do the moral maturity levels of the students of Imam Hatip High School show a meaningful difference according to gender?

3. Do the moral maturity levels of the students of Imam Hatip High School show a meaningful difference according to the grade level?

4. Do the moral maturity levels of the students of the Imam Hatip High School show a meaningful difference according to where they stayed?

2. Method

2.1. Research Model

The study is a descriptive screening model because it aims to present the present situation as it exists. Descriptive research defines a given situation as fully and carefully as possible (Büyüköztürk, Çakmak, Akgün, Karadeniz and Demirel, 2011).

2.2. Study Group

The study group of this research is composed of 220 students who are studying in Imam Hatip High School in Ortakoy district of Aksaray in the academic year of 2016-2017.

2.3. Data Collection Instrument

The " Moral Maturity Scale " developed by Şengün and Kaya (2007) and the " Personal Information Form " created by the researcher were used as data collection tools in the study. The Moral Maturity Scale consisting of 66 items is of the five-point Likert type and has a reliability value of .89. The highest score that can be taken from the scale is 330, the lowest score is 66. Scale items are graded as "yes, always", "most of the time", "occasional", "very rare", "no, never". Positive points are scored by giving 5 points to the "yes, always" option, 4 points to the "most of the time" option, 3 points to the "occasional" option, 2 points to the "very rare" option and 1 point to the "no, never" option. Scoring for negative items is done in the opposite direction. In the personal information form created by the researcher there are 3 questions about the gender, class level and the place of stayed the students.

2.4. Data Analysis

Data were analyzed with SPSS 16 packet program, frequency distributions were calculated, t-test and one-way analysis of variance techniques were used. The significance value of the data was accepted as p <.05.

3. Results

At the end of the research, the following conclusions were reached:

1. The level of moral maturity of Ortakoy İmam Hatip High School students is above avarage.

2. The level of moral maturity of students do not make a meaningful difference according to gender, grade level and place stayed.

Table 1. Results of moral maturity levels of students

	n	Min.	Max.	X	Sd
Moral maturity	220	219	328	289,64	21,36

As seen in Table 1, the average level of moral maturity of students is 289,64 and standard deviation is 21,36. The lowest score obtained in the Moral Maturity Scale is 219 and the highest score is 328. Based on this result, it can be said that Imam Hatip High School students have high moral maturity level above the average.

Table 2. Results of gender variability of students

Gender	n	%	X	Sd	p
Female	136	62	290,42	21,35	.481
Male	84	38	288,35	21,44	

According to Table 2, 62 % (136 students) of the students are female and 38 % (84 students) are male. The average level of moral maturity of females is 290.42, the level of standard deviation of females is 21.35. The average level of moral maturity of male students is 288.35, the level of standard deviation of male is

21.44. In line with these results, it is seen that female students have a higher level of moral maturity than male students but not a significant difference on moral maturity level of sex students. (p> .05).

Table 3. Results related to the level of class variables of students

Class Level	n	%	X	Sd	p
9th Grade	94	42,7	289,35	22,97	
10th Grade	43	19,5	286,40	19,50	
11th Grade	43	19,5	291,47	21,47	.629
12th Grade	40	18,2	291,85	19,41	

According to Table 3, 42.7 % (94 students) of the students are in the 9th grade, 19.5 % (43 students) are in the 10th grade, 19.5 % (43 students) are in the 11th grade, 18 students (40 students) are 12th grade students. The average level of moral maturity of 9th grade students is 289,35 and standard deviation is 22,97. The average level of moral maturity of 10th grade students is 286.40 and standard deviation is 19.50. The average level of moral maturity of 11th grade students is 291,47 and standard deviation is 21,47. The average level of moral maturity of 12th grade students is 291.85 and standard deviation is 19,41. The class levels of the students did not make a significant difference on the levels of moral maturity. (p> .05)

Table 4. Results related to the place the students stayed

Place	n	%	X	Sd	p
Home	192	87	290,18	21,26	.331
Hostel	28	13	285,96	22,07	.350

According to Table 4, 87 % (192 students) of the students stay in their homes and 13 % (28 students) stay in various hostels. The average level of moral maturity of the students staying at home is 290,18 and standard deviation is 21,26. The average maturity level of the students staying in the hostels is 285,96 and standard deviation is 22,07. Although the level of moral maturity of the students staying in their homes is higher than the students staying in the hostels, the difference between them is not significant. (p> .05)

4. Discussion, Conclusion and Implications

The individual is accepted to the extent that he or she adheres to the rules and values that the society accepts. It is important for the human being who can not live alone that individuals are accepted in society, they can adapt to society, and they comply with some rules adopted by society (Özkara, 2010). Being a social being, communicating with other people and developing various forms of relationship requires the existence of a great deal of moral values (Hatunoğlu, 2003). Adoption of cultural and moral values accepted by the society by individuals will enable healthy societies to exist within these values by fulfilling the duties and responsibilities expected from the society in which the individual lives. (Güngör, 2004).

Students who prefer the Imam Hatip High Schools prefer these schools with the expectation of learning religious information with their support and their families (Ateş, 2010; Karateke, 2010; Dündar, 2008). Parents who prefer Imam Hatip High Schools for their children want their children to be ethical individuals (Dündar, 2008).

When investigating the studies related to the Imam Hatip High Schools, it is seen that the subjects such as professional perception (Özen and Gülaçtı, 2006), perception of professional competence (Vural, 2016), professional interest (Aslan, 2013), university determination (Dikbayır and Bölükbaşı, 2016), music education (Sevinç, 2017), listening skills (Gürses, 2009), peer relations, human values and subjective well-being (Yılmaz, 2016), Allah almighty (Taluk, 2014), Arabic self-efficacy (Yaman, 2016), Parental attitudes and self-checks (Buyuk, 2016), violence trends (Kanal, 2008), religious beliefs and attitudes (Özüdoğru, 2003), Audit focus (Ağır, 1994) and responsibility (Kaya, 2000) as well as the studies about the historical process of the schools are also studied.

When we look at domestic studies on moral maturity, there are many studies that investigate the relation with other concepts and test the effect of some education and programs on moral maturity. Moral maturity is associated with concepts such as quality of life and hopefulness (Ünal, 2016), tolerance tendencies (Yeşilkayalı, 2014), Social attitude (Yıldırım, 2014), Sensitivity state (Seyrek, 2014), Democratic attitude (Kardaş, 2013), Intercultural tolerance (Bakioğlu, 2013), Competence beliefs (Yüksel, 2012), General self-efficacy levels (Adıgüzel, 2017), Humor styles and violent tendencies (Bayraktaroğlu, 2016), Narcissistic personality traits (Özyer, 2015), Dunning-Kruger effect (Turğut, 2015), Religionial Belief (Kaya and Aydın, 2011), Parent attitudes (Şengün, 2013), Human values (Sarıçam et al., 2014), Subjective well-being (Çelebi and Sezgin, 2015), prayer (Kımter, 2016), Parental occupation and economic level (Şengün, 2015), Religiosity tendencies (Aktaş ve Kartopu, 2016), Feeling bullying trends (Kakcı, 2009), effect of Kelam lesson (Bulut, 2014). The moral maturity levels of high school students (Şengün, 2008) and prospective teachers (Çekin, 2013) were examined according to some variables. The effects on moral maturity of the character education programs with justice and respect (Demir, 2008), responsibility and helpfulness (Aydın, 2008) were investigated.

In studies carried out abroad, the concept of moral maturity was generally studied on the leaders in business life (Abu Bakar, Mujtaba and Medjedel, 2015), nurses (Sumner, 2010), adolescents (Hardy et al., 2012) and marketers (Falkendberg, 2010). In addition, the relationship between the environment as a predictor of undesired behaviors (Dokter, 2011) has been examined. The study of the effects of political disputes (Ferguson and Cairs, 2002) and the media ethics course (Auger and Gee, 2016) on moral maturity were examined.

As a result, in our study to determine the moral maturity level of the students of Imam Hatip High School, the students had high moral maturity level. It was found that the moral maturity level did not show any significant difference according to gender, class level and place they stayed.

Looking at the studies supporting the research result; In a study conducted by Şengün (2008), it was found that the moral maturity level of the imam hatip high school students was higher than the other high school students. In a study conducted by Kaya and Aydın (2011), it was found that the moral maturity level of the theology faculty students was higher than the students attending the other faculties. In the study conducted by Çekin (2013), it was determined that the moral maturity level of the teacher candidates in the department of religious culture and ethics reached the first place. In this context, it can be said that the results obtained from our studies have similarities with the results of other studies. As a result of the research, it is seen that the moral maturity levels of the students do not have any relation with gender. In this context, similar results were achieved in the study of Çekin (2013). In the study, it was determined that the gender variable did not constitute a significant difference on the moral maturity level of the prospective teachers.

Because the research sample is made up of students of a religious education institution, discussion of moral maturity and religion, religious education and religiosity will be in place. Süslü (2006) states that religion has a strong acceptance of the fact that religion has a decisive influence on morality in the theoretical sense of its study of relationship with morality. More than half of the participants emphasized that there must be a relationship between religiosity and ethics. Furthermore, a positive relationship between religious belief and moral maturity was found in Kaya and Aydın (2011) study. In this context, religious and moral education is thought to increase the level of moral maturity of individuals. According to Topçu, who is concerned with the relationship between morality and religion, the aim of morality, like religion, is to clear the human soul and raise it to infinity. For example, the work of religion in society is to be a source of

strength for souls. However, it does not provide people with some information. In addition, religious knowledge teaches ways of gaining mental strength. These are not house descriptions, but are order and value server information for a man's inner life. Thus, according to Topçu, religion is not a source of information for people but a source of strength (Cihan, 2016).

In this context Kohlberg, a moral development theorist, states that as a different view, the development of religion and morality is quite distinct and should not be confused with one another. We can see that Kohlberg's does not particularly associate a person's moral judgment with religion, and does not believe that a religion is superior to another in the course of moral development. On the other hand, contrary to religious-based moral systems, in which what is good or bad is determined by the religious authority, Kohlberg argues that man can discover the universal "good" only by his own cynicism. As can be clearly seen from these views, Kohlberg has built a sense of ethical education based on non-religious grounds. Therefore, it should be noted that Kohlberg's understanding of moral education does not coincide with religious-based moral understandings (Çinemre, 2013).

If suggestions are made in the direction of the research findings, moral education should be given practically not only in the İmam Hatip Schools but also in all schools. The family and school should work together on the moral development of children. Importantly, adults should be a good role model for children.

According to Topçu (2016), the school should uncover and sustain the strongest parts of people. Only schools with this understanding can produce qualified individuals in the fields of science, art and philosophy. In this context, Topçu has made some suggestions for the prevention of moral education problems and for the development of the moral principles required in national life, school and family. These suggestions are as follows:

1. Broadcasting on a neutral and full history culture based on science principles and taking place widely in schools.

2. Giving children, press, radio, stage and schools a deep inner education that depends on the subjects of the nation, religion, art and morality from the first years of school.

3. National education should be all cultural institutions that are not contrary to the language and traditions of a nation.

4. The necessity of a nation scene and a nation's university.

5. Creating an idealistic aesthetic case in the society.

6. The inner eucation combined with art is the real ethics of young people and women.

7. The presence of great people who are devoted to the sense of community, responsibility and sacrifice, who live far from reputation and wealth, and to be introduced to younger generations.

8. More idealistic training schools than technical schools.

9. Take out the benefit from the life.

10. Ethical education should be based on sound foundations, be at the desired level, and be connected to an authority.

Except those; Ethics lessons should be given to the students in elementary school, secondary school and high school. Education of girls and boys should be separated (Topçu, 2016).

References

Adıgüzel, A. (2017). Üniversite öğrencilerinin ahlaki olgunluk düzeyleri ile genel özyeterlik düzeyleri arasındaki ilişki [The relationship between university students' moral maturity levels and their general self-efficacy perceptions]. *Anadolu Eğitim Liderliği ve Öğretim Dergisi*, *5* (1), 1-16.

Ağır, M.S. (1994). *Normal lise ve İmam Hatip Lisesi öğrencilerinin denetim odakları üzerine bir inceleme.* [A review of the focus of the normal high school and Imam Hatip High school students] Yüksek Lisans Tezi, Marmara Üniversitesi Sosyal Bilimler Enstitüsü.

Aktaş, H. and Kartopu, S. (2016). Üniversite öğrencilerinin dindarlık eğilimlerine göre ahlaki olgunluk düzeylerinin incelenmesi: Gümüşhane Üniversitesi örneği [Analysis of moral maturity level according to tendency of religiosity of university students: A case study in the university of Gumushane]. *Akademik Sosyal Araştırmalar Dergisi, 4* (35), 121-143.

Aslan, A. (2013). *Üsküdar Anadolu İmam Hatip Lisesi Son Sınıf Öğrencilerinin Mesleki İlgileri* [Vocational choices of Uskudar religious vocational school]. Yüksek Lisans Tezi, Hasan Kalyoncu Üniversitesi Sosyal Bilimler Enstitüsü, İstanbul.

Aşlamacı, İ. (2014). Türkiye'nin İslam eğitim modeli: İmam-hatip okulları ve temel özellikleri [A model İslamic Education of Turkey: Imam Hatip Schools and basic features]. *International Periodical For The Languages, Literature and History of Turkish or Turkic*, *9*(5), 265-278.

Ateş, P. (2016). *İmam Hatip Lisesi'nde okuyan öğrencilerin imam hatip lisesi'ni tercih nedenleri ve beklentileri* [İmam Hatip High school students' reasons for preference imam hatip high school and expectations]. Yüksek Lisans Tezi, Gaziantep Üniversitesi Sosyal Bilimler Enstitüsü.

Auger, G.A. and Gee, C. (2016). Developing moral maturity: An Evaluation of the media ethics course using the Defining Issues Test 2 (DIT-2). *Journalism & Mass Communication Educator*, *71*(2), 146-162. doi: 10.1177/1077695815584460

Aydın, Ö. (2008). *Sorumluluk ve yardımseverlik odaklı karakter eğitimi programının 7. Sınıf öğrencilerinin ahlaki olgunluk düzeyine etkisi* [The effects of Helpfullness and Responsibility Character Education program on student's moral maturity level]. Yüksek Lisans Tezi, Yeditepe Üniversitesi Sosyal Bilimler Enstitüsü İstanbul.

Bakar, A.R., Mujtaba, B.G. and Medjedel, A. (2015). Ethical maturity scores of future arab business leaders based on gender, age, seniority, management, and ethics training, *Open Ethics and Law Journal, 1*, 8-16.

Bakioğlu, F. (2013). *Kültürlerarası tolerans ile ahlaki olgunluk arasındaki ilişkinin incelenmesi* [The relationship between intercultural tolerance levels and moral maturity levels of university students]. Yüksek Lisans Tezi, Gaziosmanpaşa Üniversitesi Eğitim Bilimleri Enstitüsü, Tokat.

Bayraktaroğlu, E. (2016). *Lise öğrencilerinin ahlaki olgunluk düzeyleri ile mizah tarzları ve şiddet eğilimleri arasındaki ilişkinin incelenmesi* [Study on the relationship between moral maturity levels of high school students with humor style trends and tendency to violence]. Yüksek Lisans Tezi, Gazi Üniversitesi Eğitim Bilimleri Enstitüsü, Ankara.

Bulut, İ. (2014). İDKAB öğrencilerinin bireysel yenilikçilik ve ahlaki olgunluk düzeyleri üzerine kelam dersinin etkisi [The effect of teaching theology (Kalam) on the relation between the ındividual ınnovativeness levels and their moral maturity levels]. *Kelam Araştırmaları, 12*(2), 55-100.

Buyuk, A. (2016). *İmam hatip lisesinde okuyan öğrencilerin ebeveyn tutumları ile benlik kontrolleri arasındaki ilişkinin incelenmesi* [Analysis of the relationship between imam hatip high school students' self-control and parental attitudes in terms of certain variables]. Yüksek Lisans Tezi, Nişantaşı Üniversitesi Sosyal Bilimler Enstitüsü, İstanbul.

Büyüköztürk, Ş., Çakmak, E.K., Akgün, Ö.E., Karadeniz, Ş. And Demirel, F. (2011). *Bilimsel Araştırma Yöntemleri* [Scientific research methods]. 8. Baskı, Ankara: Pegem.

Cihan, M. (2016). Nurettin Topçu ve ahlak eğitimi, [Nurettin Topçu and moral education]. *A.Ü. Türkiyat Araştırmaları Enstitüsü Dergisi* (TAED). 56,1387-1398.

Çekin, A. (2013). Öğretmen adaylarının ahlaki olgunluk düzeyleri [Moral maturity level of teacher candidates]. *Kastamonu Eğitim Dergisi, 21*(3), 1035-1048.

Çelebi, Ç.D. and Sezgin, O. (2015). Lise öğrencilerinin öznel iyi oluşları ile ahlâkî olgunluk seviyeleri arasındaki ilişkinin incelenmesi [Relationship between subjective well-being and moral maturity levels of high school students]. *Kalem Eğitim ve İnsan Bilimleri Dergisi, 5* (2), 99-146.

Çelen, N. (2000). Kohlberg'in ahlak gelişimi üzerine görüşleri [Kohlberg's views on moral development]. *Uludağ Üniversitesi Eğitim Fakültesi Dergisi, 1,* 13.

Çinemre, S. (2013). Bir ahlak eğitimcisi olarak Lawrence Kohlberg [Lawrence Kohlberg: As a moral educator]. *Uludağ Üniversitesi İlahiyat Fakültesi Dergisi, 22*(1), 143-164.

Demir, B. (2008*). Adalet ve saygı içerikli karakter eğitimi proğramının 7. sınıf öğrencilerinin ahlaki olgunluk düzeyine etkisi* [The effects of justice and respect character training programme on student's moral maturity level]. Yüksek Lisans Tezi, Yeditepe Üniversitesi Sosyal Bilimler Enstitüsü, İstanbul.

Dikbayır, C. and Bölükbaşı, A. (2016). Eyüp Kız Anadolu İmam-Hatip Lisesi son sınıf öğrencilerinin üniversite yönelimleri üzerine bir değerlendirme [An evaluation on the university orientations of the senior students of Eyüp Anatolian Vocational Religious High School for girls]. *Akademik Sosyal Araştırmalar Dergisi, 4*(33), 183-200.

Dilmaç, B. (1999). *İlköğretim öğrencilerine insani değerler eğitimi verilmesi ve ahlaki olgunluk ölçeği ile eğitimin sınanması* [Giving the human value education program to 4th and 5th grade students of primary schools and evaluation of the efficiency of the program using moral maturity scale]. Yüksek Lisans Tezi, Marmara Üniversitesi Eğitim Bilimleri Enstitüsü, İstanbul.

Dokter, A.P.H.M. (2011). *Moral maturity and environment as predictors of undesired behavior.* Bachelor Thesis Psychology, University of Twente.

Dündar, F.G. (2008). *Çocuklarını İmam Hatip Lisesine gönderen anne babaların imam hatip liselerini tercih nedenleri ve beklentileri-Yozgat İli Örneği* [The expectations of the parents who chose imam hatip high schools for the education of their children and the motives behind their choice-Yozgat City Sample], Yüksek Lisans Tezi, Ankara Üniversitesi Eğitim Bilimleri Enstitüsü.

Emiroğlu, A. (2016). *Türkiye'de din eğitimi bağlamında İmam Hatip Okulları 1924-1980* [Religious Vocational Schools in Turkey on the context of Religious Education 1924-1980]. Doktora Tezi, Selçuk Üniversitesi Sosyal Bilimler Enstitüsü, Konya.

Falkenberg, A.W. (2010). An international perspective on the moral maturity of marketers. *Australasian Marketing Journal, 18,* 186-189.

Ferguson, N. and Cairns, E. (2002). The impact of political conflict on moral maturity: A cross-National perspective. *Journal of Adolescence,* 25, 441-451. doi: 10.1006/jado.2002.0495

Green, J.G. (2012). *Ethical decision making in small commercial firms: An investigation of ethical maturity.* Doctoral Dissertation, Capella University Philosophy.

Gündüz, T. (2000). Ergenlerde ahlâk gelişimi ve cinsellik. [Moral Development and sexuality in adolescents]. *Uludağ Üniversitesi İlahiyat Fakültesi, 9*(9), 715-753.

Güngör, A. (2004). "*Ahlaki (törel) gelişim*" [Moral development], Editör: ULUSOY A. In *Gelişim ve öğrenme* [Development and learning].3. Baskı, Ankara: Anı Yayıncılık, s.81.

Gürses, P. (2009). *Çubuk İmam Hatip Lisesi 9. sınıf öğrencilerinin dinleme becerilerinin geliştirilmesi* [Developing listening skills of 9th year students at Cubuk Imam Hatip High School]. Yüksek Lisans Tezi, Hacettepe Üniversitesi Sosyal Bilimler Enstitüsü, Ankara.

Hardy, S.A., Walker, L.J., Olsen, J.A., Skalski, J.E., and Basinger, J.C. (2011). Adolescent Naturalistic Conceptions of Moral Maturity. *Wiley Online Library.* doi: 10.1111/j.1467-9507.2010.00590.x

Hart, D. and Carlo, G. (2005). Moral development in adolescence. *Journal of Research on Adolescence, 15*(3), 223–233.

Hatunoğlu, H.K.A, (2003). *Farklı ahlaki gelişim düzeylerinde bulunan üniversite öğrencilerinin kendilerinin ve toplumun ahlak düzeylerini değerlendirmeleri ve psikolojik belirti düzeylerinin karşılaştırılması* [A comparation

between self and public evalution of moral levels, and psychological symptom levels among college students who were at different moral development levels]. Doktora Tezi, Atatürk Üniversitesi Sosyal Bilimler Enstitüsü.

Kakcı, K. (2009). *İlköğretim 4. ve 5. Sınıf öğrencilerinin ahlaki olgunluk düzeyleri ile duygu zorbalık eğilimleri arasındaki ilişkinin incelenmesi.* Yüksek Lisans Tezi, Yeditepe Üniversitesi Sosyal Bilimler Enstitüsü, İstanbul.

Kanal, İ. (2008). *İmam Hatip Lisesi öğrencilerinin şiddet eğilimlerinin çok yönlü olarak incelenmesi- İstanbul İli Anadolu Yakası Örneği* [researching the violence tendency of Imam-Hatip High School students-Istanbul Anatolian Side Sample]. Yüksek Lisans Tezi, Yeditepe Üniversitesi Sosyal Bilimler Enstitüsü, İstanbul.

Kardaş, S. (2013). *6. Sınıf öğrencilerinin demokratik tutumları ile ahlaki olgunluk düzeyi arasındaki ilişkinin incelenmesi:* Kadıköy İlçesi Örneği) [The relationship between democratic attitude and moral maturity of sixth grade students]. Yüksek Lisans Tezi, Marmara Üniversitesi Eğitim Bilimleri Enstitüsü, İstanbul.

Karateke, T. (2010). *İmam Hatip Lisesi öğrencilerinin sorun ve beklentileri- Batman ili örneği* [Imam Hatip High School Students' problems and expeciations-Batman City sample]. Yüksek Lisans Tezi, Fırat Üniversitesi Sosyal Bilimler Enstitüsü, Elazığ.

Kaya, M. (1993). *Bazı değişkenlere göre üniversite öğrencilerinin ahlaki yargıları* [According to some variables, moral judgments of university students]. Doktora Tezi, On Dokuz Mayıs Üniversitesi Sosyal Bilimler Enstitüsü.

Kaya, F. (2000). *15-16 yaş imam-hatip lisesi ergenlerinde sorumluluk ve dini sorumluluk seviyelerinin incelenmesi* [Examination of the level of the religious responsibility and responsibility in the adolescence at the age of 15-16 in religious high school]. Yüksek Lisans Tezi, Marmara Üniversitesi Sosyal Bilimler Enstitüsü, İstanbul.

Kaya, M. and Aydın, C. (2011). *Üniversite öğrencilerinin dini inanç ile ahlaki olgunluk düzeyleri arasındaki ilişkinin incelenmesi* [The investigation relations between religious belief and moral maturity levels of students at university]. *Ondokuz Mayıs Üniversitesi İlahiyat Fakültesi Dergisi, 30*, 15-42.

Kımter, N. (2016). Namaz ve ahlaki olgunluk ilişkisi [Relationship between prayer and ethical maturity]. *Dini Araştırmalar*, Temmuz-Aralık, *19*(50), 103-133. doi: 10.15745/da.280602

Kurt, H. (2014). Anadolu İmam Hatip Liseleri'nin tarihi gelişim süreci ve öğrencilerinin kelam dersine ilişkin görüşlerinin değerlendirilmesi -Bartın Anadolu İmam Hatip Lisesi örneği [The historical development of Anatolian Imam Hatip High Schools and the evaluation of their students' opinions on the Kalam course - The case of Bartın Anatolian Imam Hatip School]. *International Journal of Social Science*, 24, 73-91. doi: http://dx.doi.org/10.9761/JASSS2276

Öcal, M. (2007). From the Past to the Present: Imam and Preacher Schools in Turkey—An Ongoing Quarrel, *Religious Education*, *102*(2), 191-205. doi: 10.1080/00344080701285477

Özen, Y. and Gülaçtı, F. (2006). Genel lise ve imam hatip lisesi son sınıf öğrencilerinin meslekleri prestij yönünden algılamaları ve algılamalarını etkileyen bazı faktörler [Perceptions of general high school and religious high school seniors toward different professional careers in terms of their prestige: factors affecting prestige of professional careers]. *Erzincan Eğitim Fakültesi Dergisi*, 8(2), 49-68.

Özkara, N. (2010). *Ortaöğretim son sınıf öğrencilerinin ahlaki yargı yetenek düzeyleri, sosyal destek algıları ve psikolojik belirtilerinin incelenmesi* [The moral judgment abilities, social support perceptions and psychological symptoms of high school seniors]. Sakarya Üniversitesi, Sosyal Bilimler Enstitüsü.

Özüdoğru, H.N. (2003). *Imam Hatip Lisesi öğrencilerinin dini inanç ve tutumları ile sosyokültürel beklenti ve sorunları.* [Religious beliefs, attitudes, sociocultural expectations and problems of Imam Hatip High School students]. Yüksek Lisans Tezi, Selçuk Üniversitesi Sosyal Bilimler Enstitüsü, Konya.

Özyer, H. (2015). *Öğretmen adaylarının narsisistik kişilik özellikleri ve ahlaki olgunluk düzeylerinin bazı değişkenler açısından incelenmesi* [The narcissistic personality traits of the candidates of teaching and the study of moral maturity in terms of some variables]. Yüksek Lisans Tezi, Gaziosmanpaşa Üniversitesi Eğitim Bilimleri Enstitüsü, Tokat.

Sarıçam, H., Çelik, İ., Arıcı, N. and Kaya, M.M. (2014). Ergenlerde insani değerler ve ahlaki olgunluk arasındaki ilişkinin incelenmesi [The examination of relationship between human values and moral maturity in adolescence]. *International Journal of Human Sciences*, 11 (1), 1325-1342. doi: 10.14687/ijhs.v11i1.2888

Sarpkaya, R. (2008). Köy Enstitüleri'nden sonra imam hatip liseleri [Imam-Hatip High Schools after the Village Institutes]. *Toplum ve Demokrasi, 2*(3): 1–28.

Sevinç, M. (2017). İmam Hatip Liselerinde dinî mûsikî eğitiminin tarihsel süreci ve öğretim programlarının karşılaştırılması [Historical process and comparison of curriculums of religious music education in İmam-Hatip High Schools]. *Bozok Üniversitesi İlahiyat Fakültesi Dergisi, 11*(11), 153-184.

Seyrek, Ö.D. (2014). *Akademik personelin ahlaki olgunluk düzeylerine göre duyarlık durumu* [Compassion analysis of academic staff according to their moral maturity levels]. Yüksek Lisans Tezi, Ondokuzmayıs Üniversitesi Eğitim Bilimleri Enstitüsü, Samsun.

Sumner, J. (2010). Reflection and moral maturity in a nurse's caring practice: a critical perspective. *Nursing Philosophy ,11*, 159–169. doi: 10.1111/j.1466-769X.2010.00445.x.

Süslü, H. (2006). *Din ve ahlak ilişkisine sosyolojik bir yaklaşım: İncesu örneği* [A sociological approach to relation between religion and moral values-In town of Incesu]. Yayımlanmamış Yüksek Lisans Tezi. Erciyes Üniversitesi, Kayseri.

Şemin, R. (1979). *Çocukta ahlaki davranış ve ahlaki yargı* [Moral behavior and moral judgment in a child]. İstanbul: Edebiyat Fakültesi Matbaası.

Şengün, M. and Kaya, M. (2007). Ahlaki Olgunluk Ölçeği: Geçerlik ve güvenirlik çalışması [The Scale of Moral Maturity: The study of its validity and reliability]. *Ondokuz Mayıs Üniversitesi İlâhiyat Fakültesi Dergisi, 24-25*, 51-64.

Şengün, M. (2008). *Lise öğrencilerinin ahlaki olgunluk düzeylerinin bazı değişkenlere göre incelenmesi* [The examination of moral maturity levels of high school students in terms of some individual variables], Doktora Tezi, Ondokuz Mayıs Üniversitesi, Samsun.

Şengün, M. (2013). Anne baba tutumuna göre lise öğrencilerinin ahlâki olgunluk düzeyleri [The attitudes of parents affecting moral maturity levels of high school students]. *Hitit Üniversitesi İlahiyat Fakültesi Dergisi, 12*(23), 203-215.

Şengün, M. (2015). Anne-babanın mesleğine ve ekonomik düzeyine göre gençlerde ahlaki olgunluk [Moral maturity of high school students in terms of some economic variables]. *İlahiyat Tetkikleri Dergisi, 2*(44), 213-225.

Taluk, A. (2014). *İmam Hatip Lisesi öğrencilerinde Allah tasavvuru* [The God's description of the Religious Vocational High School students]. Yüksek Lisans Tezi, Iğdır Üniversitesi Sosyal Bilimler Enstitüsü.

Topçu, N. (2016). *Türkiye'nin maarif davası* [Turkey's education case]. 23. Baskı, İstanbul: Dergah.

Turğut, E. (2015). *Dunning-Kruger etkisinin ortaöğretim öğrencilerinin akademik mantıksal çıkarım becerisi, ahlaki olgunluk düzeyi ve yaşam pozisyonları ile ilişkisinin incelenmesi* [Analysis of the influence of Dunning-Kruger effect to the high school students' academic logical reasoning ability, moral maturity level and life position]. Yüksek Lisans Tezi, Yüzüncü Yıl Üniversitesi Eğitim Bilimleri Enstitüsü, Van.

Ünal, G. (2016*). Küçük şehirlerde ve megakentlerde yaşayan bireylerin ahlaki olgunluk düzeyi, yaşam kalitesi ve umutluluk düzeyi açısından incelenmesi* [Examination of individual's who lives in small cities and megacities in terms of moral maturity level, life quality and hope level]. Yüksek Lisans Tezi, Beykent Üniversitesi Sosyal Bilimler Enstitüsü, İstanbul.

Vural, A. (2016). *İmam Hatip Lisesi son sınıf öğrencilerinin mesleki yeterlik algısı* [The Perception of professional proficiency of last grade students of Imam and Preacher High School]. Yüksek Lisans Tezi, Ondokuz Mayıs Üniversitesi, Sosyal Bilimler Enstitüsü, Samsun.

Yaman, G. (2016). *Anadolu İmam-Hatip Lisesi öğrencilerinin Arapça öz-yeterliklerine ilişkin görüşleri: Isparta ili örneği* [Arabic self-efficacy perceptions of the students attending Anatolian İmam-Hatip High Schools: Isparta city case]. Doktora Tezi. Süleyman Demirel Üniversitesi Sosyal Bilimler Enstitüsü, Isparta.

Yeşilkayalı, E. (2014). *Ebeveynlerin çocuk haklarına yönelik tutumları ile ilköğretim öğrencilerinin ahlaki olgunluk ve hoşgörü eğilimleri arasındaki ilişi* [The relationship between parents' attitudes towards children's rights and primary students moral maturity and tolerance tendencies]. Doktora Tezi. Dokuz Eylül Üniversitesi Eğitim Bilimleri Enstitüsü, İzmir.

Yıldırım, Y. (2014). *Ortaokul 5. ve 6. Sınıf öğrencilerinin ahlaki olgunluk düzeyi ile sosyal tutumlarının incelenmesi* [Analysis of moral maturity levels and social attitudes of the 5th and 6th graders of secondary school]. Yüksek Lisans Tezi, Erzincan Üniversitesi Sosyal Bilimler Enstitüsü, Erzincan.

Yılmaz, S. (2016). *İmam Hatip Lisesi öğrencilerinin akran ilişkilerinin, insani değerler ve öznel iyi oluş düzeyleri açısından incelenmesi* [Examination of the relationships of Imam Hatip High School students in terms of human values and subjective well-being levels]. Yüksek Lisans Tezi, Marmara Üniversitesi Eğitim Bilimleri Enstitüsü, İstanbul.

Yüksel, G. (2012). *İlköğretim öğretmenlerinin karakter eğitimi yetkinlik inançları ile ahlaki olgunluk düzeyleri arasındaki ilişi* [The relationship of elementary school teachers' competence beliefs in character education and their ethical maturity levels]. Yüksek Lisans Tezi, Osmangazi Üniversitesi Eğitim Bilimleri Enstitüsü, Eskişehir.

Leadership and Job Satisfaction: Adjunct Faculty at a For-Profit University

Donald Barnett

Grand Canyon University, USA

ARTICLE INFO

ABSTRACT

There is a lack of research in the for-profit sector of higher education in the United States. Likewise, there is a lack of research on the factors that affect the job satisfaction of adjunct faculty. To address these gaps in knowledge, a quantitative correlational study was performed to investigate the effect of administrative leadership on the job satisfaction of adjunct faculty who teach online classes at a for-profit university in the United States. The Multifactor Leadership Questionnaire, which measures perceived leadership behaviors, and Spector's Job Satisfaction Survey, which measures job satisfaction, were used to anonymously collect data from a sample of 77 adjunct faculty. The Full-Range Leadership, which is composed of transformational, transactional, and laissez-faire leadership behaviors, was the theoretical model for leadership. Pearson's product moment correlational analyses were performed to investigate the bi-variate relationships between the variables. The dependent variable of total satisfaction had a statistically significant, direct and strong correlation with the independent variable of transformational leadership (r = .536, p < .0005). The strength and direction of the relationship indicated that increases in the scores of total satisfaction are associated with increases in scores in transformational leadership. Total satisfaction had a statistically significant, indirect and moderate correlation with the independent variable of laissez-faire leadership (r = -.372, p = .001). The strength and direction of the relationship indicated that lower total satisfaction scores are associated with higher laissez-faire leadership scores. There was no statistically significant relationship between transactional leadership and overall job satisfaction.

Keywords: Job satisfaction, Full-Range Leadership, Adjunct Faculty, For-profit University, Transformational Leadership, Postsecondary Education.

1. Introduction

Enrollments at for-profit universities in the United States have tripled sinced 2000, with close to 1.6 million students registered in in the year 2014 (National Center for Education Statistics, 2016). This increased enrollment, along with the expansion of online education, has amplified the demand for classes that are taught entirely online (Allen & Seaman, 2016), and produced a need for part time, non-tenured, adjunct, faculty to facilitate these classes (Starcher & Mandernach, 2016). Regardless of the increased use of adjunct faculty to teach online classes, few studies have investigated adjunct development, job satisfaction, or work experiences (Datray, Saxon, & Martirosyan, 2014; Rich, 2015). Likewise, research in the for-profit sector of post-secondary education is sparse when compared to the non-profit sector (Chung, 2012).

Currently, there is little research on the effects of perceived leadership behaviors in post-secondary, for-profit, education on the job satisfaction of online adjunct faculty members in the United States. This study sought to discover if there was a correlation between the perceived use of Full-Range leadership behaviors by administrators in post-secondary education and the overall job satisfaction of adjunct faculty members who teach online classes at a for-profit university in the United States. Bateh and Heyliger (2014) observed that

research should be conducted in the for-profit sector to determine if the job satisfaction of online adjuncts is effected by the bahaviors of administrative leadership because the problems and concerns of for-profit administrators are different than their colleagues in private or public universities. The absence of research on this demographic is significant because a university's faculty is a major contributor to the accomplishment of organizational goals (Machado-Taylor et al., 2016). Likewise, Askling and Stensaker (2002) observed the significance of researching higher education leadership practices.

1.1. Background

For-profit higher education in the United States, while not new, has expanded from less than 100,000 students over 40 years ago (Wilson, 2010) to near 1.6 million by 2014 (National Center for Education Statistic, 2016). Enrollments in the for-profit sector in the United States have increased at 9% each year over the past 30 years, while enrollment in the non-profit sector only posted a 1.5% increase per year over the same time frame (Wilson, 2010). Despite controversies concerning some for-profit schools (Deming, Goldin, & Katz, 2013), the growth potential in the for-profit sector of post-secondary education remains strong, especially in career education , adult education, and online learning (Levy, 2015). Coupled with the expansion of the for-profit sector of post-secondary education is the increased use of part-time non-tenured, or adjunct, faculty members (Gilpin, Saunders, & Stoddard, 2015).

Adjunct faculty typically are part-time employees who serve in a non-permanent capacity. They are non-tenured, temporary, employees of a university who work as independent contractors. Post-secondary institutions pay per course that the adjunct teaches, or sometimes retain their services by yearly appointment (Bradley, 2013). In 2010, adjunct faculty accounted for 50% of all faculty in post-secondary schools in the United States. The use of adjunct faculty has flourished because of economic concerns associated with maintaining faculty (Dailey-Hebert, Mandernach, Donnelli-Sallee, & Norris, 2014; Eagan, Jaeger, & Grantham, 2015) and the flexibility provided by adjuncts, which is required in online programs (Starcher & Mandernach, 2016). Regardless of the importance of adjunct faculty, many universities do not adequately support their adjunct faculty members (Kezar, 2013a). Generally, adjunct faculty members do not receive raises, and have limited chances for advancement. Health insurance and retirement benefits are scarce, and adjuncts seldom have a voice in university governance (Halcrow & Olson, 2011; Kezar, 2013b; Morton, 2012). Adjunct faculty who teach online classes are especially disconnected from their full-time counterparts (Benton & Li, 2015), and usually rely on other adjunct faculty members for support (Rich, 2015). Despite their importance to academia, adjunct faculty are an overlooked population (Ott & Cisneros, 2015), and little research has been conducted into factors that lead to adjunct faculty job satisfaction (Rich, 2015).

Asking and Stensaker (2002) advocated studying leadership behaviors in higher education. Moreover, Al-Smadi and Oblan (2015) stated that depending on the type of school investigated, there are statistically significant differences in faculty job satisfaction. Despite this, little research examining the correlation between administrative leadership and job satisfaction in higher education has been performed (Alonderiene & Majauskaite, 2016; Kalargyrou, Pescosolido, & Kalagrios, 2012). This research was important because of the need for research on the effect of leadership behaviors on faculty in for-profit universities (Bateh & Heyliger, 2014).

1.2. Literature Review

1.2.1. Full Range Leadership Model. The theoretical foundation for this study was the Full-Range Leadership Model (FRLM), which is composed of transformational, transactional, and laissez-faire leadership behaviors. Moynihan, Pandey, and Write (2012) observed that the FRLM is one of the best-formulated leadership models. This is true because the three leadership styles examined by the model encompass almost all leadership behaviors exhibited by leaders (Avolio & Bass, 2004). The framework of the FRLM allows researchers to examine the advantages and disadvantages of varying leadership behaviors when investigating administrative leadership in post-secondary education (Asmawi, Zakaria, & Wei, 2013).

Burns (1978) coined the phrases transactional and transformational leadership while investigating the biographies of great political and historical leaders. Bass and Avolio (1993) expanded on Burns' work and developed the FLRM in order to find leadership behaviors that would be effective in non-political organizations. Bass (1985) professed that leaders do not use one exclusive style of leadership. Instead, leaders

could use aspects of transactional and transformational leadership to effectively lead their followers. Recent research indicates a mixture of transactional and transformational leadership displays a positive predictive relationship with faculty job satisfaction (Bateh & Heyliger, 2014).

The FRLM is composed of five facets of transformational leadership, three elements of transactional leadership, and one aspect of laissez-faire leadership (Avolio & Bass, 2004).

1.2.1.1 *Transformational Leadership.* The theory of transformational leadership was introduced in a political context by Burns (1978). Critical revisions to the theory were made by Bass (1985) and Avolio and Bass (2004). Since then, the theory of transformational leadership has gone through significant meta-analytic and theoretical examinations (Banks, McCauley, Gardner, & Guler, 2016; van Knippenberg & Sitkin, 2013. Today, it is one of the most recognizable theories on leadership behavior.

Transformational leadership represents how a leader motivates and inspires their followers to achieve their higher potential (Burns, 1978). This style of leadership is based on encouragement, commendation, acknowledgement, and trust (Mujkić, Šehić, Rahimić, & Jusić, 2014). Transformational leadership addresses the needs of the followers, facilitates follower empowerment, and increases follower effort, efficiency, and satisfaction (Bass, 2000). It is separated into four dimensions that can be distinguished theoretically and empirically Hobman, Jackson, Jimmieson, & Martin (2012). These dimensions include individualized consideration, idealized influence, inspirational motivation, and intellectual stimulation (Northouse, 2013).

1.2.1.1.1. *Idealized Influence*. Omar and Hussin (2013) observed that idealized influence is associated with how a leader is viewed by their subordinates in terms of charisma, confidence, trust, power, consistency, and ideals. Leaders who exhibit idealized influence consider the needs of others before their own, and demonstrate high ethical standards. They are not motivated by personal gain and set challenging, but reasonable, goals for their followers (Northouse, 2013). In order to more accurately describe and measure this dimension, idealized influence has been divided into two different dimensions: Idealized influence (behavioral) and idealized influence (attributed), with the former denoting how the leader behaves and the latter reflecting how the leader is perceived by their followers (Avolio & Bass, 2004).

1.2.1.1.2. *Inspirational Motivation.* Sometimes referred to as inspirational leadership, inspirational motivation entails inspiring and motivating subordinates. Inspirational leaders promote eagerness and confidence in their followers by exhibiting dedication to the organization's goals, communicating high expectations, and making the employee an active part of achieving the vision of the organization (Northouse, 2013). Effective communication of an inspiring and motivating vision is the primary component of inspirational motivation (Avolio, Bass, & Jung, 1999), which inspires subordinates to share in, and be committed to, the organization's vision (Avolio & Bass, 2004). Inspirational leaders foster a climate of trust, which in turn encourages follower loyalty to the organization, even during downturns or crisis situations (Nisar, Rehman, Shah, & Rehman, 2013).

1.2.1.1.3. *Individualized Consideration*. In simple terms, individualized consideration denotes the leader's ability to make their followers feel special (Balyer, 2012). Leaders who display individualized consideration act as advisor and teacher, and strive to nurture their subordinates so they reach their greatest potential (Northouse, 2013). Bass and Avolio (1993) stressed the encouraging facet of individualized consideration and the significance of developing followers. Northouse (2013) emphasized that individualized consideration involves teaching, mentoring, reinforcement, active listening, and offering emotional and social benefaction to the follower.

1.2.1.1.4. *Intellectual Stimulation*. Avolio et al. (1999) stated intellectual stimulation encourages independent and critical thinking by subordinates. Leaders that exhibit intellectual stimulation encourage innovative thinking and the discovery of new ways to complete jobs (Anjali & Anand, 2015). Intellectually stimulating leaders never criticize the ideas of their followers when they are different from their own, and encourage problem solving by providing assignments that are intellectually challenging (Avolio & Bass, 2004; Bass, 1990).

1.2.1.2. *Transactional Leadership.* Burns (1978) devised the expression transactional leadership, which he based on the 1947 work of Max Weber. Transactional leadership can be viewed as an agreement, or exchange. Subordinates are rewarded, with pay or something else that is desired, in exchange for satisfactory performance. Conversely, punishments are denoted for unsatisfactory performance (Bass & Riggio, 2006). The

basis for transactional leadership is the adage that everything has a price, and leaders define all benefits, codes of discipline, and job duties (Bass & Avolio, 1994). Transactional leadership is composed of two individual facets: management-by-exception and contingent reward.

1.2.1.2.1. *Contingent Reward.* The basis for contingent reward is self-interest. Management motivates employees by offering a set price for their work. Contingent reward ensues when an agreement is made between leader and follower as to the rewards for successful job completion and punishment for sub-standard performance (Bass & Avolio, 1994). Managers understand the needs of the organization, establish clear expectations and goals, and effectively communicate organizational expectations (Bass, 1997).

1.2.1.2.2. *Management-by-exception.* Management-by-exception is separated into two separate facets: active management-by-exception and passive management-by-exception. Management-by-exception (active) occurs when management actively monitors an employee's work performance, taking action before work declines, and intervening if there is a violation of policy (Bass, 1997). This differs from management-by-exception (passive) in that the passive dimension involves the leader taking action only after work deteriorates or a problem occurs. Management-by-exception (passive) often involves negative feedback, correction, criticism, or punishments issued by management (Northouse, 2013). During the refinement of the Multifactor Leadership Questionnaire, which measures the dimensions of the FRLM, management-by-exception (passive) was moved from a transactional dimension to a dimension of laissez-faire, or passive-avoidant, leadership (Avolio & Bass, 2004).

1.2.1.3. *Laissez-Faire Leadership.* Laissez-faire leadership is, in essence, the lack of leadership. Laissez-faire leaders do not take action when a correction is needed. They do not offer any assistance to their subordinates and do not provide followers with feedback that could help them reach their full potential (Northouse, 2013). Laissez-faire leaders usually avoid taking any actions, shun responsibility, and are absent when needed (Bass, 1990). Even though laissez-faire leadership is not usually found in entire organizations, it is still seen in the inaction of some members of management (Bateh & Heyliger, 2014).

1.2.2. Job Satisfaction. Locke (1976) viewed job satisfaction as "a pleasurable or positive emotional state resulting from the appraisal of one's job or job experience" (p. 1300). Job satisfaction is often seen as a multifaceted combination of emotions, values, and the perceptions an individual has about the tasks associated with their job (Chamberlain, Hoben, Squires, & Estabrooks, 2016). Spector (1985) observed that job satisfaction may be viewed as the degree an individual is dissatisfied or satisfied with their job. Moradi, Almutairi, Idrus, and Emami (2013) stated that job satisfaction is a mixture of job characteristics, environment, and personal traits and feelings that are dynamic and, contingent on elements such as a changing of co-workers, supervision, or the structure of the organization, may change over time.

1.3. Research Questions and Hypotheses

Research Questions and Hypotheses. Research on the perceived effect of leadership on the job satisfaction of non-tenured, adjunct faculty members who teach online classes is lacking in the for-profit segment of post-secondary education. Research concerning the effect of leadership on job satisfaction in public and private post-secondary institutions has yielded conflicting results. Bateh and Heyliger (2014) found transformational and transactional leadership behaviors displayed a positive predictive relationship to faculty job satisfaction at a public university in Florida, United States, but laissez-faire leadership produced negative results. Amin, Shah, and Tatlah (2013) found transformational leadership had a positive relationship with job satisfaction. Conversely transactional behaviors yielded a negative relationship to the job satisfaction of lecturers at a university in Pakistan. Masum, Azad, and Beh (2015), in their research on faculty job satisfaction at a private university in Bangladesh, found transactional behaviors yielded a positive relationship with the job satisfaction of lecturers, while transformational leadership had no significant relationship. Given the conflicting findings, the researcher proposes these research questions and null hypotheses:

RQ_1: Does the transformational leadership style of a higher education administrator have a correlation with the overall job satisfaction of online adjunct faculty at a for-profit university in the United States?

$H1_0$: There is no statistically significant correlation between the administrators' transformational leadership style and the job satisfaction of online adjunct faculty at a for-profit university in the United States.

RQ2: Does the transactional leadership style of a higher education administrator have a correlation with the overall job satisfaction of online adjunct faculty at a for-profit university in the United States?

H2$_0$: There is no statistically significant correlation between the administrators' transactional leadership style and the job satisfaction of online adjunct faculty in a for-profit university in the United States.

RQ3: Does the laissez-faire leadership style of a higher education administrator have a correlation with the overall job satisfaction of online adjunct faculty at a for-profit university in the United States?

H3$_0$: There is no statistically significant correlation between the administrators' laissez-faire leadership style and the job satisfaction of online adjunct faculty at a for-profit university in the United States.

2. Method

This quantitative study used a correlational design to investigate the relationship, if any, between the leadership style of administrators in a private, for-profit university, as perceived by the adjunct faculty who teach online classes at the same university, and the overall job satisfaction of the same faculty. An examination of the bi-variate relationships between the four variables was performed with a Pearson's product moment correlational analyses. The independent variables were overall transformational leadership, overall transactional leadership, and overall laissez-faire leadership. The dependent variable was overall job satisfaction.

2.1. Sample

The study population consisted of online, non-tenured, adjunct faculty at a private, for-profit, post-secondary school in the United States. After IRB approval, the research site invited 600 prospective participants via email to participate in an online survey. After accepting the invitation, 85 individuals who met the criteria for the study took the survey. Eight individuals did not complete the survey, and their responses were removed. A total of $N = 77$ respondents composed the sample.

2.2. Instruments

The Multifactor Leadership Questionnaire 5x (MLQ) and Spector's Job Satisfaction Survey (JSS) were the instruments used in this study. The MLQ quantifies the nine different dimensions of the FRLM, using 36 total questions that are assessed on a 5-point Likert-type scale. (Avolio & Bass, 2004). George and Mallery (2016) stated a Cronbach's alpha value of .90 or more is deemed excellent, .80-.89 is seen as good, .70-.79 is judged acceptable, .60-.69 is viewed as questionable, .50-.59 is viewed as poor, and less than .50 is deemed unacceptable. Tests performed by Avolio and Bass(2004) found reliabilities of (α = .63) to (α = .92) accross the scales of the MLQ. Garg and Ramjee (2013) discovered the MLQ yielded an average Cronbach's alpha coefficient of (α = .97). For this study, the overall Cronbach alpha values were as follows: transformational leadership (α = .95), transactional leadership (α = .69), and laissez-faire leadership (α = .79). The slightly low Cronbach alpha value for overall transactional leadership was allowed because both dimensions of transactional leadership displayed high Cronbach values, contingent reward (α = .73) and management-by-exception (active) (α = .77). Moreover, the instrumentation has been used extensively and has shown acceptable reliability in similar research and in literature; therefore, all constructs were considered acceptable for use during inferential analysis.

Spector's Job Satisfaction Survey (JSS) measures nine work factors, using 4 questions for each factor, on a 6-point Likert type scale, for a total of 36 questions. Van Saane, Sluiter, Verbeek, and Frings-Dresen (2003), in their assessment of 29 different instruments that measured job satisfaction, found the JSS met all reliability and validity criteria, and produced Cronbach alpha values of (α = .60) to (α = .80) across the scales, and an overall Cronbach alpha of (α = .91). For this study, the Cronbach alpha value for overall job satisfaction was (α = .90).

3. Results

3.1. Descriptive Statistics

Descriptive data concerning the respondents and other demographic data was not collected for this study. The descriptive analysis for the MLQ and JSS (Table 1) are as follows. The sample rated transactional leadership as the highest perceived overall style of leadership (M = 2.87), followed by transformational leadership (M = 2.85), and laissez-faire leadership (M = 2.79). The respondents perceived the three styles of leadership being used at almost the same frequency, which indicates all three styles were used by administrators. To measure overall job satisfaction, Spector (1997) stated the 36-item scale, which ranges from 36 to 216, should be interpreted as follows: ranges from 36 to 108 indicate dissatisfaction, 109 to 144 indicate ambivalence, and 145 to 216 indicate satisfaction. The overall job satisfaction for this study (M = 116.34) indicates the respondents are ambivalent about their overall job satisfaction, expressing neither satisfaction nor dissatisfaction.

Table 1. Measures of Central Tendency for Study Instrumentation Scores (N = 77)

Instrument/Factor	M	SD	Mdn	Sample Range
Transformational leadership	2.85	0.84	2.75	1.00 – 4.75
Transactional leadership	2.87	0.65	3.00	1.25 – 4.00
Laissez-faire leadership	2.79	0.77	2.88	1.38 – 4.63
Total satisfaction	116.34	19.92	115.00	69.00 – 154.00

Note. M = Mean; SD = Standard Deviation; Mdn = Median; MLQ = Multifactor Leadership Questionnaire;

JSS = Job Satisfaction Survey.

3.2. Correlational analysis.

The researcher used Pearson's product moment correlational analyses to examine the bi-variate relationships between the four variables (Table 2). The dependent variable of total satisfaction had a statistically significant, direct and strong correlation with the independent variable of transformational leadership (r = .536, p < .0005). The strength and direction of the relationship indicated increases in the scores of total satisfaction are associated with increases in scores in transformational leadership, and conversely, lower total satisfaction scores were associated with lower transformational leadership scores. Total satisfaction had a statistically significant, indirect and moderate correlation with the independent variable of laissez-faire leadership (r = -.372, p = .001). The strength and direction of the relationship indicated that increases in the scores of total satisfaction were associated with decreases in scores of laissez-faire leadership, and conversely, lower total satisfaction scores are associated with higher laissez-faire leadership scores. There was not a statistically significant correlation between total satisfaction and transactional leadership.

The independent variable of transactional leadership had a statistically significant, direct and moderate correlation with the independent variable of transformational leadership (r = .41, p < .0005). The strength and direction of the relationship indicated that increases in the scores of transactional leadership are associated with increases in scores in transformational leadership, and conversely, lower transactional leadership scores were associated with lower transformational leadership scores. Transactional leadership had a statistically significant, indirect and weak correlation with the independent variable of laissez-faire leadership (r = -.23, p = .043). The strength and direction of the relationship indicated that increases in the scores of transactional leadership were associated with decreases in scores of laissez-faire leadership, and conversely, lower transactional leadership scores were associated with higher laissez-faire leadership scores. There was also a statistically significant indirect and strong correlation between the independent variables of transformational leadership and laissez-faire leadership (r = -.65, p < .0005). The strength and direction of the relationship indicated that increases in the scores of transformational leadership were associated with decreases in scores of laissez-faire leadership, and conversely, lower transformational leadership scores were associated with

higher laissez-faire leadership scores. Table 2 presents the correlation coefficients for the Pearson's product moment correlations.

Table 2. Pearson's Product Moment Correlation Coefficients (N = 77)

Variable	1	2	3
1. Total satisfaction	---		
2. Transformational leadership	.54**	---	
3. Transactional leadership	-.02	.41**	---
4. Laissez-faire leadership	-.37**	-.65**	-.23*

* *p* < .05, ** *p* < .01

4. Discussion

4.1. Research Question 1

The first question investigated if, and to what extent, the transformational leadership style of the administrator affected the overall job satisfaction of online, non-tenured, adjunct faculty who teach at a for-profit university in the United States. It was hypothesized that overall transformational leadership behaviors would have a significant correlation with overall job satisfaction. The outcome of the Pearson's correlation showed a statistically significant, direct and strong correlation between overall job satisfaction and transformational leadership (*r* = .54, *p* < .0005). The strength and direction of the relationship indicated an increase in the score of total satisfaction is associated with an increase in the score in transformational leadership. Conversely, lower total scores in overall job satisfaction were associated with lower transformational leadership scores. The results denoted there was a significant correlation between transformational leadership style and overall job satisfaction; therefore, the null hypothesis was rejected.

The researcher concluded that transformational leadership was beneficial to the overall job satisfaction of online, non-tenured, adjunct faculty at a for-profit university in the United States. This finding is consistent with similar research that found job satisfaction displayed a positive relationship with transformational leadership (Aydin, Sarier, & Uysal, 2013; Banks et al., 2016). The results of this study suggest that administrators in post-secondary for-profit institutions should make use of transformational leadership techniques to enhance the job satisfaction of their followers, although since only one university was researched, it is difficult to generalize the results to similar institutions.

4.2. Research Question 2

The second question sought to discover if the administrators' transactional leadership style affected the overall job satisfaction of online, non-tenured, adjunct faculty who teach at a for-profit post-secondary institution in the United States. The researcher hypothesized overall transactional leadership behaviors would have a significant correlation with overall job satisfaction. The results showed transactional leadership did not have a significantly significant relationship with job satisfaction (*r* = -.021, *p* = .855). The null hypothesis, in this case, was not rejected.

There was not enough evidence to show a statistically significant correlation between the administrator's transactional leadership behaviors and overall job satisfaction. The findings agree with previous research that found transactional leadership to display a statistically insignificant relationship with employee job satisfaction (Amin et al., 2013; Tetteh & Brenyah, 2016), and contradicts previous research that found transactional leadership either advantageous (Aydin et al., 2013; Bateh & Heyliger, 2014; Sakiru et al., 2014) or disadvantageous to employee job satisfaction (Hijazi, Kasim, & Saud, 2016; Saleem, 2015).

4.3. Research Question 3

The third question investigated if the administrators' laissez-faire leadership style affected the overall job satisfaction of online, non-tenured, adjunct faculty who teach at a for-profit university in the United States. The researcher hypothesized overall laissez-faire leadership behaviors would have a significant correlation

with overall job satisfaction. Total satisfaction had a statistically significant, indirect and moderate correlation with the independent variable of laissez-faire leadership (r = -.37, p = .001). The strength and direction of the relationship indicated that higher laissez-faire leadership scores are associated with lower total satisfaction scores, and vice versa. The null hypothesis was rejected.

There was sufficient evidence to denote a statistically significant correlation between the administrator's laissez-faire leadership behaviors and overall job satisfaction. This study confirms recent research, which found job satisfaction had a significant negative relationship with laissez-faire leadership (Dussault & Frenette, 2015; Masum et al., 2015). The findings suggest that administrators should avoid using laissez-faire leadership behaviors in their organization.

5. Conclusion

The findings of this research add to the body of knowledge on leadership and job satisfaction by examining the relatively new demographic of adjunct faculty members who facilitate online classes for a private, for-profit university in the United States. Based on this research, and previous studies, administrators in higher education should make use of transformational leadership to enhance the job satisfaction of their followers. Conversely, administrators should avoid laissez-faire leadership because of its negative correlation with follower job satisfaction. Universities should also incorporate transformational leadership into their leadership development programs. It must be noted that correlation does not equal causation, or even a predictive relationship, but there is sufficient evidence that transformational leadership behaviors are beneficial to job satisfaction in this sample.

Limitations for this study include the fact that only one university was investigated, and the results are not generalizable to other institutions. In the future, it may be advantageous to investigate other, similar, institutions of for-profit higher learning to determine if these results are unique to the organization studied. Secondly, although a quantitative study provided valuable insight into the subject, another suggestion for further research would be to perform a qualitative study to understand faculty motivations and opinions. Third, this study did not examine the various demographic specifics of the sample. Future research could examine if there was a difference between male and female faculty members, or differences in the perceptions of adjunct faculty who teach traditional versus online classes.

Although the results of this study added to the body of knowledge, there is still significant research to be performed in the for-profit sector of post-secondary education. Likewise, the relatively new phenomenon of adjunct faculty who teach only online classes provides ample avenues to investigate their work experiences. Given that online education may expand in the future, understanding factors that affect online instructors work experiences may help universities provide a better learning environment to their faculty and students.

References

Al-Smadi, M. S., & Qbian, Y. M. (2015). Assessment of job satisfaction among faculty members and its relationship with some variables in Najran University. *Journal of Education and Practice*, *6*(35), 117-123.

Allen, I. E., & Seaman, J. (2016). *Online report card - Tracking online education in the United States*. Retrieved from Online Learning Consortium: http://onlinelearningsurvey.com/reports/onlinereportcard.pdf

Alonderiene, R., & Majauskaite, M. (2016). Leadership style and job satisfaction in higher education institutions. *International Journal of Educational Management*, *30*(1), 140-164. doi:10.1108/IJEM-08-2014-0106

Amin, M., Shah, S., & Tatlah, I. A. (2013). Impact of principals/directors' leadership styles on job satisfaction on the faculty members: Perceptions of the faculty members in a public university of Punjab, Pakistan. *Journal of Research and Reflections in Education*, *7*(2), 97-112.

Anjali, K. T., & Anand, D. (2015). Intellectual stimulation and job commitment: A study of IT professionals. *IUP Journal of Organizational Behavior*, *14*(2), 28-41.

Askling, B., & Stensaker, B. (2002). Academic leadership: Prescriptions, practices and paradoxes. *Tertiary Education and Management*, *8*, 12-125. doi: 10.1080/13583883.2002.9967073

Asmawi, A., Zakaria, S., & Wei, C. C. (2013). Understanding transformational leadership and R&D culture in Malaysian universities. *Innovation: Management, Policy & Practice*, *15*(3), 287-304. doi:10.5172/impp.2013.2612

Avolio, B. J., & Bass, B. M. (2004). *Multifactor Leadership Questionnaire: Third Edition Manual and Sampler Set*. Menlo Park, PA: Mind Garden Inc.

Avolio, B. J., Bass, B. M., & Jung, D. I. (1999). Re-examining the components of transformational and transactional leadership using the multifactor leadership questionnaire. *Journal of Occupational & Organizational Psychology*, *72*(4), 441-462. doi: 10.1348/096317999166789

Aydin, A., Sarier, Y., & Uysal, S. (2013). The effect of school principals' leadership styles on teachers' organizational commitment and job satisfaction. *Educational Sciences: Theory and Practice*, *13*(2), 806-811.

Balyer, A. (2012). Transformational leadership behaviors of school principals: A qualitative research based on teachers' perceptions. *International Online Journal of Educational Sciences*, *4*(3), 581-591. Retrieved from http://www.iojes.net/userfiles/Article/IOJES_949.pdf

Banks, G. C., McCauley, K. D., Gardner, W. L., & Guler, C. E. (2016). A meta-analytic review of authentic and transformational leadership: A test for redundancy. *The Leadership Quarterly*. doi:10.1016/j.leaqua.2016.02.006

Bass, B. M. (1985). *Leadership and performance beyond expectations*. New York, NY: The Free Press.

Bass, B. M. (1990). *Bass' and Stogdill's handbook of leadership: Theory, research and managerial applications* (3rd ed.). New York, NY: Free Press.

Bass, B. M. (2000). The future of leadership in learning organizations. *Journal of Leadership and Organizational Studies*, *7*(3), 18-40. doi: 10.1177/107179190000700302

Bass, B. M., & Avolio, B. J. (1993). Transformational leadership and organizational culture. *Public Administration Quarterly*, *17*(1), 112-121.

Bass, B. M., & Riggio, R. E. (2006). *Transformational leadership*. Mahwah, NJ: Erlbaum.

Bateh, J., & Heyliger, W. (2014). Academic administrator leadership styles and the impact on faculty job satisfaction. *Journal of Leadership Education*, *13*(3), 34-49. doi: 10.12806/v13/i3/rf3

Benton, S., & Li, D. (2015). Professional development for online adjunct faculty: The Chair's role. *The Department Chair*, *26*(1), 1-3. doi: 10.1002/dch.30027

Bradley, P. (2013). Invisible no longer. *Community College Week*, *26*(8), 6-7. Retrieved from http://npaper-wehaa.com/ccweek#2014/05/12/?s=issues

Burns, J. M. (1978). *Leadership*. New York, NY: Harper and Row.

Chamberlain, S. A., Hoben, M., Squires, J. E., & Estabrooks, C. A. (2016). Individual and organizational predictors of health care aide job satisfaction in long term care. *BMC Health Services Research*, *16*(1), 1-9. doi: 10.1186/s12913-016-1815-6

Chung, A. S. (2012). Choice of for-profit college. *Economics of Education Review*, *31*, 1084-1101. doi: 10.1016/j.econedurev.2012.004

Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences* (3rd ed.). Mahwah, NJ: Lawrence Erlbaum Associated, Inc.

Dailey-Hebert, A., Mandernach, B., Donnelli-Sallee, E., & Norris, V. (2014). Expectations, motivations, and barriers to professional development: Perspectives from adjunct instructors teaching online. *Journal of Faculty Development*, *28*(1), 67-82.

Datray, J. L., Saxon, D. P., & Martirosyan, N. M. (*2*014). Adjunct faculty in developmental education: Best practices, challenges and recommendations. *Community College Enterprise*, *20*(1), 36-49.

Deming, D., Goldin, C., & Katz, L. (2013). For-profit colleges. *Future of Children*, *13*(1), 137-63. Retrieved from http://nrs.harvard.edu/urn-3:HUL.InstRepos:12553738

Dussault, M., & Frenette, É. (2015). Supervisors' transformational leadership and bullying in the workplace. *Psychological Reports: Employment Psychology and Marketing*, *117*(3), 724-733. doi: 10.2466/01.PR0.117c30z2

Eagan, M. K., Jaeger, A. J., & Grantham, A. (2015). Supporting the academic majority: Policies and practices related to part-time faculty's job satisfaction. *The Journal of Higher Education*, *86*(3), 448-481. doi: 10.1353/jhe.2015.0012

Garg, A. K., & Ramjee, D. (2013). The relationship between leadership styles and employee commitment at a parastatal company in South Africa. *The International Business and Economics Research Journal*, *12*(11), 1411-1436. doi: 10.19030/iber.v12i11.8180

George, D., & Mallery, P. (2016). *IBM SPSS Statistics 23 step by step: A simple guide and reference,* Routledge.

Gilpin, G. A., Saunders, J., & Stoddard, C. (2015). Why has for-profit colleges' share of higher education expanded so rapidly? Estimating the responsiveness to labor market changes. *Economics of Education Review*, *45*, 53-63. doi: 10.1016/j.econedurev.2014.11.004

Halcrow, C., & Olson, M. R. (2008). Adjunct faculty: Valued resource or cheap labor? *Focus on Colleges, Universities, and Schools*, *6*(1), 1-8.

Hijazi, S., Kasim, A. L., & Daud, Y. (2016). Leadership styles and their relationship with the private university employees' job satisfaction in United Arab Emirates. *Journal of Public Administration and Governance*, *6*(4), 110-124. doi: 10.5296/jpag.v6i4.10347

Hobman, E. V., Jackson, C. J., Jimmieson, N. L., & Martin, R. (2012). The effects of transformational leadership behaviours on follower outcomes: An identity based analysis. *European Journal of Work and Organizational Psychology*, *20*, 553-580. doi: 10.1080/1359432x.2010.490046

Kalargyrou, V., Pescosolido, A. T., & Kalagriros, E. A. (2012). Leadership skills in management education. *Academy of Educational Leadership Journal*, *16*(4), 39-63.

Kezar, A. (2013a). Departmental cultures and non-tenure track faculty: Willingness, capacity, and opportunity to perform at four-year institutions. *The Journal of Higher Education*, *84*(2), 153-188. doi: 10.1353/jhe.2013.0011

Kezar, A. (2013b). Examining non-tenure track faculty perceptions of how departmental policies and practices shape their performance and ability to create student learning at four-year institutions. *Research in Higher Education*, *54*(5), 571-598. doi: 10.1007/s11162-013-9288-5

Levy, D. (2015). For-profit versus nonprofit private higher education. *International Higher Education*, *54*, 12-13.

Locke, E. A. (1976). The nature and causes of job satisfaction. In N. D. Dunnette (Ed.), *Handbook of industrial and organizational psychology* (pp. 1297-1349). Chicago, IL: Rand McNally.

Machado-Taylor, M. D., Soares, V. M., Brites, R., Ferreira, J. B., Farhangmehr, M., Gouveia, O. M., & Peterson, M. (2016). Academic job satisfaction and motivation: Findings from a nationwide study of Portuguese higher education. *Studies in Higher Education*, *41*(3), 541-559. doi: 10.1080/03075079.2014.942265

Masum, A. M., Azad, M. K., & Beh, L. (2015). Determinates of academics' job satisfaction: Empirical evidence from private universities in Bangladesh. *Plos ONE*, *10*(5), 1-15. doi: 10.1371/journal.pone.0117834

Moradi, E., Almutairi, D. O., Idrus, D., & Emami, R. (2013). The influence of organizational learning culture on job satisfaction among academic staff. *Journal of Global Management*, *5*(1), 56-66.

Morton, D. R. (2012). Adjunct faculty embraced: The institution's responsibility. *Christian Education Journal*, *9*(2), 398-407.

Moynihan, D., Pandey, S., & Wright, B. (2012). Setting the table: How transformational leadership fosters performance information use. *Journal of Public Administration Research and Theory*, *22*, 143-164. doi: 10.1093/jopart/mur024

Mujkić, A., Šehić, D., Rahimić, Z., & Jusić, J. (2014). Transformational leadership and employee satisfaction. *Ekonomski Vjesnik*, *27*(2), 259-270.

National Center for Education Statistics. (2016). http://nces.ed.gov/programs/digest/d14/tables/dt14_303.10.asp?current=yes

Nisar, M., Rehman, K., Shah, T. A., & Rehman, I. (2013). Significant predictor and outcome of interpersonal trust: Empirical evidence from Pakistan. *African Journal of Business Management*, *7*(9), 671-677. doi: 10.5897/AJBM11.1021

Northouse, P. (2013). *Leadership: Theory and practice* (6th ed.). Los Angeles, CA: Sage Publications.

Omar, W. A., & Hussin, F. (2013). Transformational leadership style and job satisfaction relationship: A study of structural equation modeling (SEM). *International Journal of Academic Research in Business and Social Sciences*, *3*(2), 346-365.

Ott, M., & Cisneros, J. (2015, September 21). Understanding the changing faculty workforce in higher education: A comparison of full-time non-tenure track and tenure line experiences. *Education Policy Analysis Archives*, *23*(90), 1-28. doi: 10.14507/epaa.v23.1934

Rich, T. (2015). A worthy asset: The adjunct faculty and the influences on their job satisfaction. *To Improve the Academy*, *34*(1/2), 156-170. doi: 10.1002/tia2.20010

Sakiru, O. K., Othman, J., Silong, A. D., Kareem, S. D., Oluwafemi, A. O., & Yusuf, G. O. (2014). Relationship between head of department leadership styles and lecturers job satisfactions in Nigerian public universities. *Asian Social Science*, *10*(6), 138-144. doi: 10.5539/ass.v10n6p138

Saleem, H. (2015). The impact of leadership styles on job satisfaction and mediating role of perceived organizational politics. *Procedia - Social and Behavioral Sciences*, *172*, 563-569. doi: 10.1016/j.sbspro.2015.01.403

Spector, P. E. (1985). Measurement of human service staff satisfaction: Development of the job satisfaction survey. *American Journal of Community Psychology*, *13*(6), 693-713. doi: 10.1007/bf00929796

Spector, P. E. (1997). Job satisfaction survey, JSS page. Retrieved from http://shell.cas.usf.edu/~pspector/scales/jsspag.html

Starcher, K., & Mandernach, B. J. (2016). An examination of adjunct faculty characteristics: Comparison between non-profit and for-profit institutions. *Online Journal of Distance Administration*, *19*(1). Retrieved from http://www.westga.edu/~distance/ojdla/spring191/starcher_mandernach191.html

Tetteh, E. N., & Brenyah, R. S. (2016). Organizational leadership styles and their impact on employees' job satisfaction: Evidence from the mobile telecommunications sector of Ghana. *Global Journal of Human Resource Management*, *4*(4), 12-24.

Van Knippenberg, D., & Sitkin, S. B. (2013). A critical assessment of charismatic-transformational leadership research: Back to the drawing board? *The Academy of Management Annals*, *7*(1), 1-60. doi: 10.1080/19416520.2013.759433

Van Saane, N., Sluiter, J. K., Verbeek, J. H., & Frings-Dresen, M. H. (2003). Reliability and validity of instruments measuring job satisfaction - a systematic review. *Occupational Medicine*, *53*, 191-200. doi: 10.1093/occmed/kqg038

Wilson, R. (2010). For-profit colleges change higher education's landscape. *Chronicle of Higher Education*, *56*(22), A1-A9.

Influence Factor of Tertiary Students' Employability Awareness Adjust Industry 4.0

Chun-Mei Chou[1], Chien-Hua Shen[2], Hsi-Chi Hsiao[3], Tsu-Chguan Shen[4]

[1] *Institute of Vocational and Technological Education, Taiwan*

[2] *Department of Business Administration, Taiwan*

[3] *Department of Business Administration, Taiwan*

[4]*Sacred Hearts High School, Taiwan*

ARTICLE INFO

ABSTRACT

This study aims to analyze the correlation (N=621) among tertiary students' career planning, e-recruiting adoption acceptance, and employability awareness in Taiwan. Tertiary students' perceived career planning includes four factors, namely, self-appraisal, job expectancy, goal selection, and problem solving. E-recruiting adoption acceptance includes four factors, namely, playfulness, ease of use, effectiveness, and usefulness. Employability awareness includes four factors, namely, personal adaptability, employability ambition, career identity, and labour market. Participants responded to a 5-point Likert-type scale for each factor. Analysis was conducted using the structural equation modeling (SEM), and a good model fit was found for both the measurement and structural models. Research findings demonstrate that tertiary students' career planning significantly and directly influences employability awareness. Career planning significantly and indirectly influences employability awareness by e-recruiting adoption acceptance. Tertiary students' career planning and e-recruiting   adoption acceptance fit the influence model and empirical data of employability awareness. Implications of this study, including the value of student self-assessment of their skills and utility of the e-recruiting to underpin personal career development planning and inform graduate recruitment processes, are discussed and recommendations made.

Keywords:
Tertiary students; Industry 4.0; Employability awareness; E-recruiting adoption acceptance ; career planning

1.Introduction

Graduate employability is a key issue for Higher Education. While offering career planning services to both employers and students to facilitate the matching of talents to the demands of the job market, tertiary education major role is to provide career education — to facilitate students' understanding of self and their motivation in setting clear career goals; to offer guidance for making sound career choices and decisions; and to help them acquire job-hunting skills and implement relevant and effective job-hunting strategies (Gerards, Grip, and Witlox, 2014; Hinchliffe and Jolly, 2010; Paadi, 2014).

The e-recruiting websites are platforms for information on job opportunities and requirements (Vicknair, Elkersh, Yancey, and Budden, 2010). Industry manpower supply and demand information through the Web-based recruitment can help students to understand job demand and change. Enterprises are using e-recruiting websites to recruit employees. On the other hand, the practice of using corporate websites to recruit new employees has new career counsel and job search teaching media for promoting students' employment awareness. E-recruiting websites have changed enterprises' recruiting methods and job seekers' job seeking methods (Adrews and Russell, 2012; Braddy, Meade, Michael, and Fleenor, 2009; Shafie, 2010). In addition, they also have become the most frequently used platform and interface for job seekers and job

recruiters (Maurer and Liu, 2007; Misra and Mishra, 2011; Tominson, 2012).

E-recruiting adoption acceptance show employee accepted information about company profiles, job vacancies, and employment requirements. Students through employment requirements include the requirements concerning formal education, experiences, past performances, and the physical traits of the potential candidates, as well as the occupational skills, personal characteristics, and personal traits for the corresponding posts, which can help students understand the job competences (Maurer& Cook, 2011; Paadi, 2014; Saunders and Zuzel, 2010).

From a social cognition theory point of view, high career planning of students has actually indicates towards high career identity, personal adaptability, employability ambition, and labour market (Fugate, Kinicki, and Ashforth, 2004; Gaudron, 2011). Research suggests that e-recruiting adoption acceptance is important to affect employability awareness. It is positively related to students' career identity, personal adaptability, employability ambition, and labour market. It is suggested that the concept of e-recruiting adoption acceptance, derived from social cognition theory plays an important role in the development of employability awareness (Huang, 2013; Wang, 2013).

The paper, Analysis of factors in tertiary students perceived career planning and employability awareness: using e-recruiting adoption acceptance as a mediator variable, discussed the variables which may influence tertiary students employability awareness and found the relationships among the variables.

1.1 Purposes of this study

The purposes of this study are to address the 2 following issues.

1. What are the relationships between tertiary students' perceived career planning, e-recruiting adoption acceptance, and employability awareness?

2. Can we identify a suitable model that relates these factors and helps to identify important implications for using e-recruiting to improve students' employability awareness?

2. Methodology

2.1 Research design

This study employed a structural equation modeling (SEM) to analyze the relationships between tertiary students' perceived career planning, e-recruiting adoption, and employability awareness. Data were collected through a survey questionnaire, which is comprised of questions on demographics and multiple items for each construct in the study. Normal distribution testing of the related variables in the model of this study is shown in Table 1. Although all observation variables do not reach normal distribution ($p<.05$), multi-variance normal test is insignificant ($p>.05$), which demonstrates normal distribution. According to the conditions of Maximum Likelihood (ML), within the most commonly used approach in SEM one of the conditions should be a simple random sampling that meets multi-variance normal distribution. Samples of this study meet the conditions of ML. Some scholars suggest that it is influential only when Kurtosis is above 25; therefore, when Kurtosis is below 25, ML is still an applicable analysis (Bagozzi &Yi, 1988; Bentler and Bonett, 1980; Hair, 2010). Boomsma and Hoogland (2001) compared and probed into the completeness of different estimation methods, and concluded that in regard to models with observation variables above 6 or 8. With non-normal distribution, ML has better statistical traits. Thus, although overall variables of this study meet the multi-variance normal distribution of ML, a single variable does not meet normal distribution. Kurtosis of multi-variance distribution is not large (<25); therefore, this research estimates the model by ML.

2.2 Participants

This study treated tertiary students as the population, and adopted random sampling and cluster sampling for a survey. A total of 621 valid samples were collected. In this population, Table 1 shows respondents' gender, age, current post, school category, student background, and school attributes. Participants gave informed consent before the study commenced.

Table 1. Distribution of tertiary students' background in survey (N=621).

Participant demographics	Frequency	%
Gender		
Male	322	51.9
Female	299	48.1
Age		
20 years (and below)	141	22.7
21-22 years	229	36.9
23-24 years	215	34.6
Over 25 years	36	5.8
Current post		
Full-time students	327	52.66
part-time teachers	294	47.34
Student background		
Science, engineering, agriculture and design	207	33.33
Business, management, tourism and recreation	211	33.98
Health and medical care	137	22.06
Liberal arts, law, education and general knowledge	66	10.63
School attributes		
Public	314	50.6
Private	307	49.4

2.3 Measures

A 42-item survey questionnaire was developed to measure participants' career planning, e-recruiting adoption, and employability awareness. The scale for career planning included four constructs, namely, self-appraisal (3 items), occupation information (3 items), goal selection (3 items), and problem solving(4 items). The scale for e-recruiting adoption acceptance included playfulness (3 items), ease of use (3 items), effectiveness (3 items), and usefulness (3 items). The scale for employability awareness included labour market (4 items), career identity (4 items), employability ambition (5 items), and personal adaptability (4 items). The items reflected in the questionnaire could allow participants to take reference from their personal experiences when responding. Each item was measured on a five-point Likert scale of 1=strongly disagree to 5=strongly agree. A total of 13 items were used to measure career planning, 12 items were used to measure e-recruiting adoption acceptance, and 17 items measure employability awareness. These items are listed in the table 1.

2.4 Research tool

The research tool was the survey of "Investigation of factors in tertiary students' employability awareness". The compilation of this scale was based on the concepts of the e-recruiting adoption acceptance subscale by Cho, Lee and Liu (2011), and Lee (2007), career planning subscale by Gaudron (2011), and Rothwell, Herbert and Rothwell (2008), and the employability awareness subscale by Rothwell, Jewell and Hardie (2009),

Saunders and Zuzel (2010). In this study, three experts evaluated the fitness of the questions in order to verify the expert fitness of the scale. Eight tertiary students were invited to answer the questionnaire in order to enhance face validity. Six tertiary schools were selected for a pre-test, with 115 students as the subjects. A total of 123 valid samples were collected; with a valid return rate of 95%. The scale in this study was a self-reported inventory, based on a Likert 5-point scale, where the range of "agree" to "disagree" is denoted by 5 to 1, respectively. The factor names, number of items, validity, and reliability levels of each aspect in this scale are as shown in Table 2.

Table 2. Factors, number of items, validity and reliability of tertiary students' perceived career planning and e-recruiting adoption acceptance on scale for tertiary students' employability awareness.

Factor	Composition of scales	No of items	Factor loading	Cronbach α	Accumulated explained variance	Kmo	Total reliability Cronbach α
Scale of career planning	Self-appraisal	3	20.54	.91			
	Occupation information	3	18.13	.88	64.95	.913	.92
	Goal selection	3	16.17	.85			
	Problem solving	4	10.11	.91			
E-recruiting adoption acceptance	Playfulness	3	23.54	.88			
	Ease of use	3	19.24	.91	64.80	.864	.90
	Effectiveness	3	12.41	.91			
	Usefulness	3	9.61	.90			
Employability awareness	Labour market	4	20.78	.91			
	Career identity	4	19.24	.89	62.49	.842	.91
	Employability ambition	5	12.14	.88			
	Personal adaptability	4	10.33	.86			

2.5 Data analysis

Regarding data processing of formal survey, the returned questionnaires were coded. Linear Structural Relations (LISREL) was used to validate the correlation and influences among career planning, e-recruiting adoption acceptance, and employability awareness by Statistical Package for Social Science, SPSS 10.0. Statistical test criterion of this study is α=0.05.

3.Results

3.1. Fit test of influence model of employability awareness materials

This study validated the model by LISREL 8.52. The estimation method was determined after examining the samples, and model estimation was carried out by software. Before the model fit test, whether the estimation coefficient is over the defined scope was verified. Only when parameter coefficients estimated do not violate the estimation can the fit test be conducted.

According to the definitions of Hair, Anderson, Tatham, and Black (1998), the three following items can be used to examine estimation violations: 1) negative error variable exists; 2) normalized coefficient is above or approximate to 1 (0.95 is the usual threshold), and 3) significant standard deviation. According to parameters estimations reveal positive error variables, and there are no negative variables. Normalized

coefficient is 0.25~0.95, and the remaining within the scope. Therefore, parameters estimations are not violated, and fit could be conducted.

This study conducted model fit testing by general criterion, according to fit measures estimated by the statistical method, in order to find out the fitness between the research data and model. Measures of this study are based on absolute fit, incremental fit, and parsimonious fit, as classified by Hair, Anderson, Tatham, and Black (1998). In addition, construct reliability and validity tests of variables were used to determine the internal structural fit. Analytical results are shown below.

3.2. Overall fit

Based on the above, overall fit can be measured by absolute fit, incremental fit, and parsimonious fit. After estimation by LISERL 8.52, according to Table 3 the chi-square of the model is = 212.14, p<.05, which is significant, and shows that there are significant differences between the covariance matrix of the model and the empirical data. Chi-square testing can be easily influenced by the number of samples and normality of the data. Therefore, when evaluating overall model fit, this study includes other measures.

This study first examines theoretical validation of the model regarding unsatisfying evaluation standards. After reviewing MI, the model is modified according to the rationality of the theory. Although model fit after modification is enhanced, estimates of Usefulness and e-recruiting adoption acceptance do not reach a level of significance, and re-estimation is required. Although modified χ testing fails to reach a statistical significance level, the model fit is improved and mostly satisfies the standards. In addition, tests of overall fit are generally positive.

According to the analytical results of the revised model in Table 3, in absolute fit measures, GFI= 0.91, which is slightly higher than the standard of 0.9. According to Gefen and Straub (2000), GFI should be above 0.90, thus, this model is acceptable. AGFI= 0.83, which is higher than the standard of 0.8. Gefen and and Straub (2000) suggests that AGFI should be above 0.80 thus, thus, the model is acceptable. RMSEA= .012 and <0.08. According to Jarvenpaa, Tractinsky and Vitale, (2000), RMSEA should be lower than 0.08, thus, based on the measures above; absolute fit of this model is good.

Table 3. Results of overall model fit test of tertiary students' employability awareness.

Model fit	Evaluation items and outcome (N=831)	Evaluation standard	Scholars	Fit
	$\chi 2$= 212.14	<5	Hair et al. (1998)	Acceptable
	d .f.= 45			
Absolute fit	$\chi 2/$d .f.=4.75			
	GFI= 0.91	>0.9	Hair (2010)	Acceptable
	AGFI= 0.83	>0.8	Hair (2010)	Acceptable
	SRMR=0.09	<0.1	Hu and Bentler (1999)	Acceptable
	RMSEA= .012	<0.08	Jarvenpaa et al. (2000)	Acceptable
Incremental fit	NFI= 0.92	>0.9	Bentler and Bonett (1980)	Acceptable
	NNFI=0.91	>0.9	Bentler and Bonett (1980)	Acceptable
	IFI= 0.92	>0.9	Bentler and Bonett (1980)	Acceptable
	CFI= 0.91	>0.9	Bagozzi&Yi (1988)	Acceptable
Parsimonious fit	PNFI= 0.68	>0.5	Bentler and Bonett (1980)	Acceptable
	PGFI= 0.57	>0.5	Bentler and Bonett (1980)	Acceptable

As to incremental fit and parsimonious fit measures, according to Gefen and and Straub (2000) and Hair et al. (1998), when NFI, IFI, RFI, and CFI are above 0.9, PNFI and PGFI should be above 0.5 in order for the

model to be accepted. According to data tested, NFI= 0.92, which is above the standard 0.9. It shows that the model is accepted. IFI= 0.92, which is above 0.9 means that the model is accepted. RFI= 0.89, which is lower than the standard 0.9. It means that the model is almost acceptable. CFI= 0.91, thus, the model is relatively acceptable. PNFI= 0.68, which is above the standard 0.5 means that the model is relatively acceptable. PGFI= 0.57, which is above 0.5 means that the model is acceptable. According to the incremental and parsimonious fit measures above, the models of this study are acceptable. However, absolute fit is good, which suggests that the models are still acceptable, as the overall model meets empirical data.

3.3. Structural fit

Regarding structural model fit, Hair Jr. et al (1998) suggested the measurement significance test and the R2 of latent dependent variables of structural parameters. The R2 of dependent variables should be lower than the standard of 0.5, and correlation among the latent variables should be higher than 0.90.

Regarding the structural fit test, according to the structural parameters of the influence model of tertiary students' employability awareness materials, career planning and e-recruiting adoption acceptance are significant (t=4.52, p<.05). In addition, as to the evaluation of R2 latent dependent variables, , career planning, and e-recruiting adoption acceptance are 0.48 and 0.62, respectively. The R2 of e-recruiting adoption acceptance is lower than 0.50, which meet the evaluation standards; therefore, the structural model fit of this study is good.

Correlation coefficients of the latent variables are further tested. The coefficients of the three latent variables are 0.48~0.84. The correlation coefficient of employability awareness on career planning is higher than 0.60. Thus, the three latent variables may affect the structural model fit due to overly high correlations.
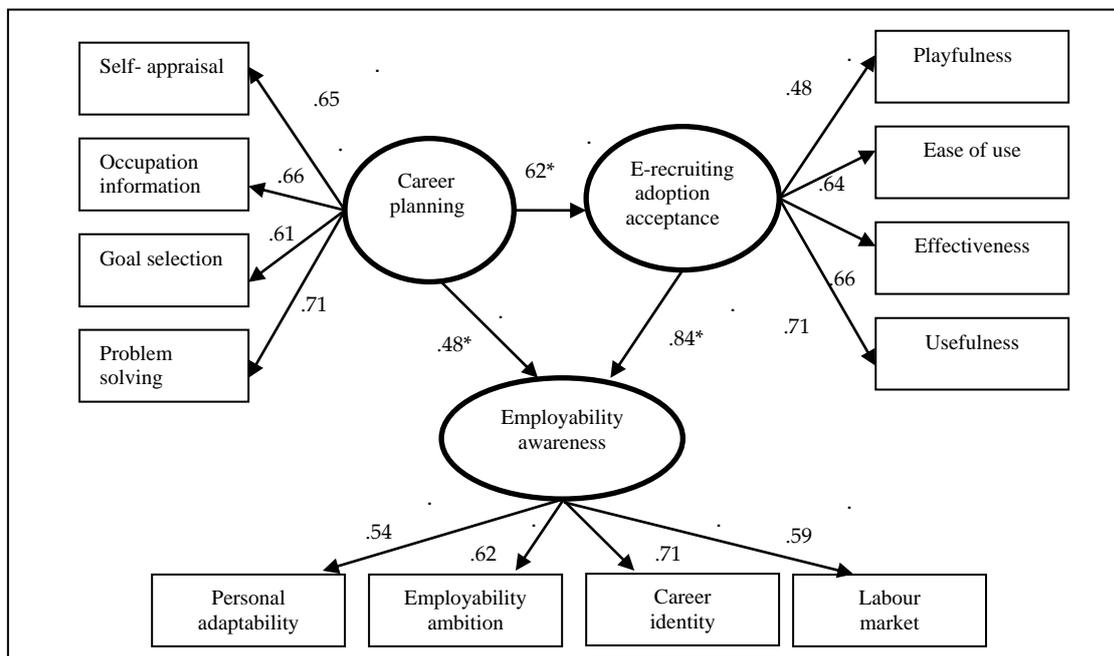

Figure 1. Path of tertiary students' employability awareness.

4. Discussion

This study aims to analyze the correlations among tertiary students' perceived career planning, e-recruiting adoption acceptance, and employability awareness in Taiwan. The findings are as shown below:

Tertiary students' career planning, goal selection, and problem solving show significant influence on employability ambition and career identity in student's employability awareness. Occupation information and labour market allow students to recognize objectives of employability awareness in schools. When students encounter job environmental changes and employ competition, teachers gradually understand and trust the measures of the students' career planning. Through goal selection and rewards by students, teachers can fulfill their creativity and further employability courses and e-recruiting technology adoption teaching design. This will allow them to accomplish student employability objectives and career identity in order to meet industry environmental changes (Dinther, Dochy, Segers, and Braeken, 2014; Grobler, Joubert, and Lesuthu, 2014; Kasperzack, Ernst, and Pinquart, 2014).

Tertiary students' career planning, staff commitment, and problem solving show significant influence on ease of use and effectiveness of e-recruiting adoption acceptance. Career identity and employability ambition in tertiary students' employability awareness significantly influence effectiveness and ease of use of e-recruiting adoption acceptance. Tertiary students' perceived problem solving and self-appraisal will enhance tertiary students' effectiveness of labour market, employability ambition, and implementation of e-recruiting technology. It is one of the key factors on tertiary students' e-recruiting adoption acceptance (Cho, Lee, and Liu, 2011; Gerards, Grip, and Witlox, 2014; Grobler, Joubert, and Lesuthu, 2014).

Tertiary students' career planning significantly and directly influences employability awareness. Career planning significantly and indirectly influences employability awareness through e-recruiting adoption acceptance. Tertiary students' career planning and e-recruiting adoption acceptance fit influence model and empirical data of employability awareness. Therefore, teachers should respect and support students' career decision problem solving through cognition employability of and evaluation e-recruiting contents, teachers can constantly ponder on e-recruiting teaching and information technology. They will enhance career identity and employability ambition. Tertiary teachers' active promotion of web-based recruiting technology ideas in employability and practical use of e-instruction will encourage student learning. They identify with goal selection through career planning in order to develop tertiary students' employability awareness, and constantly adopt and implement e-recruiting technology. Thus, they will result in useful e-recruiting and employability ambition (Grobler, Joubert, and Lesuthu, 2014; Hinchliffe, and Jolly, 2010; Huang, 2013;; Paadi, 2014).

Although the model of this study reveals goodness of fit, the fit effect remains unsatisfying, which suggest that there are some latent variables that have not been elaborated. Variables in models sometimes fail to reveal the ideal explanatory effect; thus, this study further probes into the model with a more complete overall fit.

4.1 Limitations of the study

This study focuses on the influence of tertiary students' perceived career planning on employability awareness. Kasperzack, Ernst and Pinquart (2014) found that students' career resilience has a significant direct effect on employability self-efficacy, and perceived labor market competition has a significant effect on employability self-efficacy through employability self-efficacy. When students perceived employability awareness and labor market competition tend to identify more closely with the career planning. Students use the e-recruiting network system and are engaged in activities of job search and employment processing. Would such activities cause them to highly identify with employability awareness? This is a limitation of this study.

4.2 Implications for practice

The findings of this study demonstrate that "goal selection" and "problem solving" of tertiary students' "career planning" significantly influence "employability awareness". E-recruiting technology users' use

intentions depend on their attitudes toward e-recruiting adoption acceptance. Job search resources and teacher support employability information will indirectly affect users' intentions to use e-recruiting systems (Tong, 2009; Woods, and O'Leary, 2006). Administrators of tertiary should create tertiary students' career planning that encourage students to continually contemplate on goal selection approaches, and through problem solving and goal selection, energize tertiary students' active promotions of personal adaptability for e-recruiting technology adoption and continuous employability learning.

Acknowledgements

References

Adrews, G. and Russell, M. (2012). Employability skills development: Strategy, evaluation and impact. *Higher Education, Skills and Work-Based Learning, 2*(1), 33 – 44. doi:10.1108/20423891211197721

Bagozzi, R.P. and Yi. Y. (1988). On the evaluation of structural equation models. *Academy of Marking Science 16*, 76-94.

Bentler, P.M., and Bonett, D.G. (1980). Significance tests and goodness of fit in the analysis of covariance structures. *Psychological Bulletin 88*, 588-606.

Braddy, P. W., Meade, A. V., Michael, J. J., and Fleenor, J. W. (2009). Internet recruiting: effects of website content features on viewers' perceptions of organizational culture. *International Journal of Selection and Assessment, 17*(1), 19–34. doi: 10.1111/j.1468-2389.2009.00448.x

Boomsma, A., and Hoogland, J. J. (2001). The Robustness of LISREL modeling revisited. In *Structural equation models: Present and future,* ed. R. Cudeck, S. du Toit, and D. Sorbom, 139–168. Chicago: Scientific Software International.

Cho, S., Lee, W., and Liu, J. (2011). E-recruitment: effects of enjoyment and attitudes toward web sites on corporate ımage and ıntention to apply. International CHRIE Conference-Refereed Track. Paper 6. http://scholarworks.umass.edu/refereed/ICHRIE_2011/Thursday/6

Dinther, M.V., Dochy, F., Segers, M., and Braeken, J. (2014). Student perceptions of assessment and student self-efficacy in competence-based education. *Educational Studies, 40* (3), 330-351. doi: 10.1080/03055698.2014.898577

Fugate, M., Kinicki, A. J., and Ashforth, B. E. (2004). Employability: A psycho-social construct, its dimensions, and applications. *Journal of Vocational Behavior 65*, 14–38. doi:10.1016/j.jvb.2003.10.005

Gaudron, J. P. 2011. "A Psychometric Evaluation of The Career Planning Scale-Short Form Among French University students." *Journal of Career Assessment* 19(4): 420-430.

Gefen, D. and D. Straub. 2000. "The Relative Importance of Perceived Ease-of Use in IS Adoption: A Study of E-Commerce Adoption." JAIS.

Gerards, R., A. Grip, and M. Witlox. 2014. "Employability-Miles' and Worker Employability Awareness." *Applied Economics* 46(9): 952-965.

Grobler, B., P. Joubert, and K. Lesuthu. 2014. "Job Seekers' Perceptions about The PNet Website as an E-Recruitment Tool Within South Africa." *Mediterranean Journal of Social Sciences* 5 (7): 530-541.

Hair, J.F., W.C. Black, B.J. Babin, and R.E. Anderson. 2010. *Multivariate Data Analysis(7th ed.)* New Jersey: Pearson Prentice Hall.

Hinchliffe, G.W., and A. Jolly. 2010. "Graduate Identity and Employability." *British Education Research Journal* 37(4): 563-584.

Huang, R. 2013. "International Experience and Graduate Employability: Perceptions of Chinese International Students in the UK." *Journal of Hospitality, Leisure, Sport and Tourism Education, 13:* 87–96.

Jarvenpaa, S. L., J. Tractinsky, and M. Vitale. 2000. Consumer Trust in an Internet Store." *Information Technology and Management 1*(1&2): 45-71.

Kasperzack, D., A. L. Ernst, and M. Pinquart. 2014. "Ambivalence During and After Career Decision Making of High School Graduates." *Journal of Career Assessment* 22 (2): 248-260.

Shafie, L. A. 2010. "Employability Awareness among Malaysian Undergraduates." International *Journal of Business and Management* 5(8):119-123.

Tominson, M. 2012. "Graduate Employability: A Review of Conceptual and Evmirical Themes." *Higher Educaiton Policy* 25(4):407-431.

Maurer, S. D., and D. P.Cook. 2011. "Using Company Web Sites to E-Recruit Qualified Applicants: A Job Marketing Based Review of Theory-Based Research." *Computers in Human Behavior* 27: 106–117.

Maurer, S., and Y. Liu. 2007. "Developing Effective E-Recruiting Websites: Insights for Managers from Marketers." *Business Horizons* 50(4): 305–314.

Misra, R.K., and P. Mishra. 2011. "Employability Skills: The Conceptual Framework and Scale Development." *Indian Journal of Industrial Relations* 46(4): 1-20.

Paadi, K. 2014. "Perceptions on Employability Skills Necessary to Enhance Human Resource Management Graduates Prospects of Securing a Relevant Plance in The Labour Market." *European Scientific Journal* 3:129-143.

Rothwell, A., I. Herbert, and F. Rothwell. 2008. "Self-perceived Employability: Construction and Initial Validation of a Scale for University Students." *Journal of Vocational Behavior* 73: 1–12.

Rothwell, A., S. Jewell, and M. Hardie. 2009. "Self-Perceived Employability: Investigating the Responses of Post-Graduate Students." *Journal of Vocational Behavior* 75: 152–161.

Vicknair, J., D. Elkersh, K. Yancey, and M. C. Budden. 2010. "The Use of Social Networking Websites as a Recruiting Tool for Employers." *American Journal of Business Education* 3(11): 1-10.

Saunders, V. and K. Zuzel. 2010. "Evaluating Employability Skills: Employer and Student Perceptions." *Bioscience Education* 15(1): 1-15.

Wang, Y. F. 2013. "Constructing Career Competency Model of Hospitality Industry Employees for Career Success." *International Journal of Contemporary Hospitality Management* 25(7): 994 – 1016.

The Effect of Istighfar on State and Trait Anxiety

Ahmet Canan Karakaş[1], Gülşah Geçimli[2]

[1]*Karabük University, Karabük, Turkey*

ARTICLE INFO	ABSTRACT
	Istighfar (seeking forgiveness of Allah) and tawbah (repentance) are as old as at least the human history. Anxiety is also a need of human nature. Human develops the strategies to cope with challenges. One of them is religious coping. One of the religious coping ways is istighfar. Constantly performing istighfar may make easier to deal with anxiety. Thus, in this study, the state-trait anxiety scale was applied to the final year undergraduate students. The experimental and control groups of 20 persons were comprised of students with higher anxiety level. The experimental group was told to do istighfar 100 times per day during one month. In the end of this practice, a decrease was observed in the state-trait anxiety average of experimental group.

1.Introduction

Istighfar has been a forgiveness and exit way for human since Hazrat Adam (Alayhi as-salam/Peace be upon him). He turned to istighfar by feeling sorrow and embarrassment of coming down to the earth and Allah removed his embarrassment accepting his tawbah. Thereby, istighfar became the key of first joy and relaxation. Allah encourages us on tawbah and istighfar in order that we live a happy and relaxed life. "And O my People! Ask forgiveness of your Lord, and turn to Him (in repentance): He will send you the skies pouring abundant rain, and add strength to your strength: so turn ye not back in sin!"

On the other hand, human is not anxiety-free. Since anxiety is a fear type -the subject of which is ambiguous, it is a cognitive organization composed in mind. It is comprised of ideas and believes. Hence, unfounded ideas are stated as "suspicion" in the wahy's (revelation) expression. "O ye who believe! Avoid suspicion as much (as possible): for suspicion in some cases is a sin". In another verse: "They follow nothing but conjecture and what the souls desire! –Even though there has already come to them Guidance from their Lord!" Considering it in this sense, following conjecture may lead human to some anxieties. After the Quran, human soul can form anxiety. "It was We Who created man, and We know what suggestions his soul makes to him: for We are nearer to him than (his) jugular vein." "Truly man was created very impatient". Some pleasures or expectations human cannot achieve may make him anxious because of his ambition.

In this point, istighfar may be a crucial factor in being cleansed of faults a person fall into due to ambition and in relaxing. Because, in a hadith, it was uttered that: "If anyone constantly seeks pardon (from Allah), Allah will appoint for him a way out of every distress and a relief from every anxiety, and will provide sustenance for him from where he expects not." It is understood from the hadith that being cleansed with

istighfar may lead to inner peace, and thereby human can produce solutions to extricate himself from the state he is in.

The word istighfar is the infinitive of istif'al part of gaferah verb. The part of istif'al means generally request. The word istighfar means asking forgiveness. The verb gaferah is used also when a person seems to pardon somebody, although he does not in reality. In other expression, the lexical meaning of istighfar is to ask something to be covered, ignored, and concealed (Yalçınkaya, 2010). Istighfar involves the meaning that a person asks Allah to cover or forgive his sins, and for Allah's pardon.

It is to ask Allah to be forgiven and pardoned due to an error or fault. The word istighfar is used mostly in the Quran in the sense of asking forgiveness. However, it was stated that the word 'istighfar' are used in terms of salah (namaz and pray) in the verses of the surahs Family of Imran (3/17) and Adh-Dhariyat (18) (Yalçınkaya, 2010). In short, istighfar is a religious experience involving asking Allah to be forgiven and help for not committing sin again by confessing sins orally and in heart (Yapıcı, 1997). Every act driving a wedge between human and Allah, breaking or bringing to break the bond of human with his creator human is bonded spiritually and finds peace by this bonding is a sin (Yapıcı, 1997). Istighfar is an important step to return to the creator human drifted apart, and to regain the peace feeling human lost. Since constancy in istighfar would bring to tawbah, it would heighten the consciousness about what should make anxious him to what extent, by strengthening the spirituality.

Human soul may produce anxiety and be anxious instead of solving the matter by trusting in God (tawakkul). In fact, human persecutes his soul by this way. On contrary, he can prefer turning towards peace by remembering Allah and performing istighfar.

"Those who, when they commit an immorality or wrong themselves, remember Allah and seek forgiveness for their sins. And who can forgive sins except Allah? And who do not persist in what they have done while they know". Human chooses every behavior on his own (Kaner, 1993).

Being aware of having a very forgiving God and performing istighfar of faults and sins would lead to the hope to be pardoned, to ease at least the repression on the soul resulting from sins. Thereby, human is relaxed. Hope is defined as a cognitive fact with two components related and required for the aim, that are desire to achieve the aim and skill to find ways in reaching the aim. The focal point of these two components is comprised of aims. Aims involve objects, experiences, and outcomes we desire and imagine in our mind (Snyder, 2000). Hope is the belief that something would go well, get better, and positive events would occur. Hope is a concept enabling individual to strengthen and keep well-being. In this term, hopeful people are bright, energetic and their joy of life is great. Moreover, people with high hope are likened by surrounding people and take emotional and social support more. This state makes the life more meaningful and valuable for them. Additionally, pray and istighfar wipe out stress, depression, and trouble triggering physical diseases, and become remedy for psychological and mental illnesses (Karagöz, 2009).

The difference of istighfar from tawbah is that tawbah is related to future, while istighfar to past. Again, a person cannot do tawbah on behalf of another person, but can pray for another person to be forgiven, perform istighfar in the name of another person. There is no specific time for istighfar and tawbah. As death time is not known, tawbah-istighfar should be performed as soon as possible, when a sin is committed. On the other hand, doing istighfar at early dawn is emphasized in certain verses, and those who perform istighfar at early dawn are praised. The early dawn is the dawn time when the darkness in the end of night mingled with the first day lights. In a hadith, it was uttered that: "Be vigilant in standing up [in prayer] at night, for it was the practice of the pious before you. It is a means of gaining proximity to Allah, expiation for transgressions and a barrier from sins".

Tawbah, an act of confession, is therapeutically valuable. Therapists express that intensifying guilt feeling and thinking to be late to be forgiven are illness symptoms. A person who is depressive due to his sins can eliminate it through tawbah. Indeed, a person would believe in being forgiven of his sins after reading the Quran (Aksöz, 2015).

1.1. Anxiety

The root of the word anxiety is "anxietas" in ancient Greek and this concept means worry, fear, and curiosity (Köknel, 1988). In its broadest sense, anxiety is mope and nervousness resulted from fear or expectation of danger or misfortune (Budak, 2000). As anxiety is felt with various and versatile emotions, it can be confused with excitement kinds such as notably fear, phobia and stress, and these can be used interchangeably. In addition, its usage in the form of apprehension, worry, nervousness, and mope is widespread. It is a subjective emotional state accompanied by physical symptoms such as shivering, muscle tension, chest pain, heart throb, dizziness, headache and stomachache.

Uncertainty of future is among the most important causes of anxiety. Lives evolving as the time changes make accommodation hard for human and intensify future related anxieties. Anxiety is considered to be a significant fact affecting human's individuality and personality (Köknel, 2007).

Anxiety springs up when human faces a new situation. Leaving the present state emerges as an existential opportunity for anxiety since every choice human makes means to give up something, and it renders human anxious. Anxiety is the finiteness human experience in his own transience (Manav, 2011). The elements provoking anxiety can be split into three items. The first one is the disappearance of usual environment. The second one is the results arising from negative effects. The third one is the contradiction deriving from the behavior human displays in contrast to his idea. The last element is the inability to know what will happen in future (Cüceloğlu, 1991).

Since Anxiety is a very disturbing emotion, it cannot be stood for a long time (Gençtan, 1998). Human develops multiple strategies to deal with these emotions and ease this disturbance. Focusing on the matter, he makes an effort to get rid of anxiety until he finds a solution through defense mechanisms such as denial, repression, rationalization, reaction formation, projection etc. (Özel, 2012).

Freud who identifies anxiety as a neurotic state emphasizes that anxiety results in essence from the repression of impulses of id which is personality's primitive aspect. For instance, a boy fearing to stay in closed spaces is scared, in fact, of explaining his sexual desires and need to establish close relationship. In other words, the reason of anxiety is frustration (Manav, 2011).

Both external and internal factors play a role in the emergence of state anxiety regarding to the state-trait anxiety distinction. It is an emotional state experienced as lives dangerous or perceived dangerous by individual, and in an acute way. Trait anxiety is felt constantly and chronically due to individual's proneness to perceive and interpret the present situation as stressful (Yıldız, Sezen, & Yenen, 2007).

State anxiety is defined as stationary anxiety type arising from temporary situations emerging due to dangerous conditions, and "trait anxiety" as an endogenous anxiety kind making individual feel that intrinsic values are in danger, and leading to interpret the present situation as stressful (Özgüven, 1994). State anxiety is an emotional reaction resulted from perceiving special states as threatening, or it is a subjective fear felt because of present stressful circumstance. State anxiety is the anxiety kind sprung up when meeting an unwanted and dangerous situation. State anxiety is the subjective fear felt due to the present stressful circumstance. The physical changes occurring in consequence of a stimuli in autonomic nervous system, such as perspiration, yellowing, reddening, and shivering, are the symptoms of individual's tension and discomfort feelings. The increase in state anxiety level happens as stress intensifies, and the decrease when stress goes away. The severity and duration of state anxiety are related to the amount of perceived threat and persistence of person's interpretation for dangerous situation (Öner & Le Compte, 1983). Trait anxiety is felt regarding future and the disposition to be anxious. It can be identified as the disposition to perceive generally the present circumstance as stressful, or to interpret it as stress. Trait anxiety is unhappiness and discomfort felt in result that person perceives pressure-free and neutral situations as dangerous and threatening his essence (Öner & Le Compte, 1983).

Both internal and external factors have a role in the emergence of state anxiety. It is an emotional state experienced as lives dangerous or perceived dangerous by individual, and in an acute way. Trait anxiety is felt constantly and chronically due to individual's proneness to perceive and interpret the present situation as stressful. State anxiety is an emotional reaction resulted from perceiving special states as threatening, or it is a subjective fear felt because of present stressful circumstance. The increase in state anxiety level happens as stress intensifies, and the decrease when stress goes away (Sertbaş, 1998).

1.2. Present study

The purpose of this research is to assess the anxiety level of university students and to investigate whether these anxiety levels differ significantly with regard to students various socio-demographic features, and if istighfar has any impact in reducing anxiety.

2.Method

2.1. Participants

A total of 108 participants among the final year students at the Teaching Certificate Program in Theology Faculty of Karabük University, consisting of 79 female and 29 male, took part in the research.

2.2. Insruments

2.2.1. Spielberger State-Trait Anxiety Inventory (STAI)

Spielberger State-Trait Anxiety Inventory (STAI) was constructed by Charles Spielberger and his colleagues with the aim to measure state and trait anxiety separately. The adaptation and translation of STAI into Turkish was made by Öner ve Le Compte (1974-1977). In the reliability study carried out by Öner and Le Compte, the Alpha reliability coefficient of Stait-Trait Anxiety Inventory was found between 0.83 and 0.87 for Trait Anxiety Scale and between 0.94 and 0.96 for State Anxiety Scale in various applications (Öner & Le Compte, 1983). The scales were applied to 108 final year students in the Faculty of Theology of Karabük University. The sample of the study consists of 79 female and 29 male participants.

2.3. Procedure

The state-trait anxiety inventories (STAI I, II) were applied to the experimental and control groups of 15 were created of students with higher anxiety scores in regard to the results on a volunteer basis. The experimental group was asked to perform istighfar 100 times per day and this practice continued for 30 days. In the end of this practice, the results were analyzed through the program of SPSS 20.0. The pretest and posttest results of the experimental and control groups were calculated comparatively.

3. Results

The results of experimental studies were presented in the tables and interpreted.

Table 1. Average and minimum-maximum scores of state and trait anxiety of the implementation group

	$\overline{X}$	Min.	Max.
State Anxiety	39.83	30.00	53.00
Trait Anxiety	47.20	34.00	75.00

According to Table 1, the average score of participants for state anxiety was calculated as 39.83 ($\overline{X}$ =39.83). Its minimum score was calculated as 30.00, and the maximum one as 53.00. The average score of trait anxiety was found as 47.20 ($\overline{X}$ =47.20). Its minimum score was calculated as 34.00, and the maximum one as 75.20.

Table 2. Distribution of state and trait anxiety average scores of the implementation group by gender

Gender		State Anxiety	Trait Anxiety
Female	$\overline{X}$	39.00	48.22
	N	74	74
Male	$\overline{X}$	41.97	44.62
	N	29	29

Considering Table 2, the state anxiety score of females was calculated as 39.00 ($\overline{X}$= 39.00), and the trait anxiety score as 48.22 ($\overline{X}$= 48.22) in average. The state anxiety score of males was found as 41.97 ($\overline{X}$=41.97) and trait anxiety score 44.62 ($\overline{X}$= 44.62) in average. Consequently, males' state anxiety scores are higher than those of females while females' trait anxiety scores are higher than those of males.

Table 3. Control group state-trait anxiety pre-test-displays post-test average scores

	$\overline{X}$	N	Std.
Control Group State Anxiety Pre-test	41.87	15	5.58
Control Group State Anxiety Post-test	41.80	15	4.09
Control Group Trait Anxiety Pre-test	49.20	15	5.81
Control Group Trait Anxiety Post-test	46.34	15	6.25

According to Table 3, the average pretest score of control groups for state anxiety was calculated as 41.87 ($\overline{X}$=41.87), and the posttest average as 41.80 ($\overline{X}$=41.80). The average pretest score of control groups for trait anxiety was found as 49.20 ($\overline{X}$=49.20) and the posttest average as 46.34 ($\overline{X}$=46.34). As a result, no change is observed in state anxiety average, while a partial decrease in trait anxiety average was detected.

Table 4. Experiment group state-trait anxiety pre-test-displays post-test average points.

		$\overline{X}$	N	Std. Dev.
Pair 1	Experiment Group State Anxiety Pre-test	41.67	15	5.31
	Experiment Group State Anxiety Post-test	38.47	15	3.83
Pair 2	Experiment Group Trait Anxiety Pre-test	52.73	15	7.93
	Experiment Group State-Trait Anxiety Post-test	45.87	15	4.03

According to Table 4, the average score of control group in state anxiety pretest was calculated as 41.67 ($\overline{X}$=41.67), and the posttest average as 52.73 ($\overline{X}$=52.73). The average score of experimental group in state anxiety posttest was found as 38.47 ($\overline{X}$=38.47), and the average score of control group in trait anxiety posttest as 45.87 ($\overline{X}$=45.87). Consequently, a significant decrease was identified in the average scores of those practicing istighfar for both two anxiety types.

4. Conclusion

In Islam, tawbah is considered to be the most powerful practice in protecting human's moral health. A careful treatment with the antidote tawbah does not only ameliorate the souls poisoned by sins, but also increases the required vivacity for a good life (Syed, 1969). The extension of anxiety duration leads human to not know what to do with future and to not be able to decide what to do. As a result of this, human may enter into the process of have groundless feelings as in getting in trouble (Çakmak & Hevedanlı, 2005). If istighfar is made a habit, in other words it is performed as a pray repeated constantly and regularly, it can transform various negative states and emotions into positive ones. Also, performing constantly istighfar may facilitate to do tawbah.

In this study, it was observed that istighfar reduced partially the state anxiety of experimental group, and to a significant extent the trait anxiety of experimental group. Any experimental study addressing directly the association between istighfar and anxiety is not found. Yet, there are several studies examining the relationship between state-trait anxiety and various variables.

As the anxiety level of students was examined with regard to sex, it was detected that the trait anxiety level of female students is higher than that of male students. A study concluded that students give "disease and death of someone so close" and "not finding a job and unemployment" as the most substantial anxiety reasons (Kaya & Varol, 2004). Istighfar has a healing effect. In hadith, it was uttered that: "Shall I say what are your sickness and cure? Do not forget that your sickness is sin and the cure istighfar" (El-Mervân, 2010). Multiple hospitalized people express in several places that they ameliorated miraculously after they confessed their sin (Alaohuru, 2012).

Although any change did not observed in the state anxiety level in the comparison of pretest and posttest results of control group, a partial decrease in the trait anxiety level was found. On the contrary, the comparison of pretest and posttest scores of experimental group indicated that the state and trait anxiety level decreased significantly. In order to enhance more the reducing effect of istighfar, the latter should be done constantly. Indeed, in the hadith, it was stated that if istighfar is performed constantly, the distress will be removed and a way out of anxieties will be appointed. As the experimental study we carried out is limited to one month, the relaxation level is such that shown in the Table 4. Pursuant to Herbert Benson's (1997) findings, a pray repeated constantly encourages to escape disturbing thoughts and the physical changes prompting to remove tension. According to the findings, such kind of pray is a good support in treating low to mid-level depression (Bahadır, 2008).

Mental illnesses arise as human conscious will deviates to a considerable extent from God's will (Aksöz, 2015). This deviation is that human is bored with the narrow existence area he is in, and the tension of not experiencing metaphysics due to not being able to advance to the higher layer (Merter, 2011).

Furthermore, it was observed in certain studies that post-surgery pain and anxiety levels decrease by practicing dhikr (remembering God) program for 30 minutes (Soliman & Mohamed, 2013; Sitepu, 2009).

References

Aksöz, T. (2015). İnsan benliğinin arınması. *Sakarya Üniversitesi İlahiyat Fakültesi Dergisi, 17*(31), 81-101.

Alaohuru, C. C. (2012). Benefits of repentance. *Culture & Religion Review Journal, 2012*(1), 72-78.

Bahadır. A. (2008). Din Psikolojisi Araştırmaları ve Terapik Manevi Yardım Uygulamaları. *Journal of Selçuk University Faculty of Teology, 25,*169-180.

Baynal, F. (2015). Yetişkinlerde dindarlık ve ruh sağlığı ilişkisinin çeşitli değişkenlere göre incelenmesi. *İnsan ve Toplum Bilimleri Araştırmaları Dergisi,* [Religion and mental health in adults. *Journal of the Human and Social Science Researches], 4*(1), 206-231. doi: 10.15869/itobiad.96269

Budak, S. (2000). Psikoloji sözlüğü Ankara. Ankara: Bilim ve Sanat Yayınları.

Cüceloğlu, D. (1991). İnsan ve davranışı. İstanbul, Remzi Publishing.

Çakmak , Ö., & Hevedanlı, M. (2005). Eğitim ve fen edebiyat fakülteleri biyoloji bölümü öğrencilerinin kaygı düzeylerinin çeşitli değişkenler açısından incelenmesi   [The examination of concern levels of biology student's class by various variables]. *Elektronik Sosyal Bilimler Dergisi, 4*(14), 115-127.

El-Mervân, E. (2010). El- Mücâlesetü ve cevâhiru'l ilmi. Bahreyn: Cem'ıyetüt-terbiyeti'l İslamiye.

Gençtan, E. (1998). Psikanaliz ve sonrası. İstanbul: Remzi Publishing.

Kaner, S. (1993). Kontrol kuramı(control theory) ve gerçeklik terapisi(reality therapy). *Ankara Üniversitesi Eğitim Bilimleri Fakültesi Dergisi, 26*(2), 569-585. doi: 10.1501/Egifak_0000000486

Karagöz, İ. (2009). Dualar. Ankara: Diyanet İşleri Başkanlığı Yayınları.

Kaya, M., & Varol, K. (2004). ilahiyat fakültesi öğrencilerinin durumluksürekli kaygi düzeyleri ve kaygi nedenleri (Samsun örneği). *Ondokuz Mayıs Üniversitesi İlahiyat Fakültesi Dergisi, 17*, 31-63.

Köknel, Ö. (1988). Zorlanan insan - Kaygı çağında stres. İstanbul: Altın Kitaplar.

Köknel, Ö. (2007). Kaygıdan mutluluğa kişilik. İstanbul: Akademi Yayınları.

Manav, F. (2011). Kaygı kavramı. *Toplum Bilimleri Dergisi, 5*(9), 201-211.

Merter, M. (2011). Dokuz yüz katlı insan . İstanbul: Kaknüs Yayınları.

Öner, N., & Le Compte, A. (1983). Durumluk ve sürekli kaygı envanteri el kitabı. İstanbul: Boğaziçi Üniversitesi Yayınları.

Özel, İ. (2012). Mahkumların Dindarlık ve Süreki Kaygı Düzeylerinin Çeşitli Değişkenler Açısından İncelenmesi. *Akademik Araştırmalar Dergisi, 54*, 163-192.

Özgüven, İ. E. (2017). Psikolojik Testler. Ankara, Nobel Yayınları.

Sertbaş, G. (1998). Gebelerde doğum öncesi ve doğum sonrası dönemlerde durumluk-sürekli kaygı düzeylerinin incelenmesi (Unpublished Doctoral Thesis). İzmir: Ege Üniversitesi Sağlık Bilimleri Enstitüsü.

Sitepu, N. (2009). Effect of zikr meditation on post-operative pain among muslim patients undergoing abdominal surgery (Unpublishing Master Thesis). Medan: Songkla University.

Snyder, C. (2000). Handbook of hope: Theory, measures and applications. San Diego: CA: Academic Press.

Soliman, H., & Mohamed, S. (2013). Effects of zikr meditation and jaw relaxation on postoperative pain, anxiety and physiologic response of patients undergoing abdominal surgery. *Journal of Biology, Agriculture and Healthcare, 3(2)*, 23-38.

Syed, M. H. (1969). Effect of tauba (repentance) on penalty in Islam. *Islamic Studies, 8*(3), 189-198.

Tirmidhi, M. (1975). Sunan al-Tirmidhi, (2 ed.). Egypt, Mustafa Al-Babi Al-Halabi Library and Printing Co.

Yalçınkaya, V. (2010). Kur'an'da istiğfar kavramı. Unpublishing Master Thesis. Kayseri, Erciyes Üniversitesi Sosyal Bilimler Enstitüsü.

Yapıcı, A. (1997). İslam'da tövbe ve dini yaşantıdaki rolü. İstanbul: Beyan Yayınları.

Yıldız, M. (2007). Çocuklarda tanrı tasavvurunun gelişimi. İzmir: İzmir İlahiyat Vakfı Yayınları.

Yıldız, M., Sezen, A., & Yenen, İ. (2007). İlahiyat fakültesi öğrencilerinde durumluk-sürekli kaygi düzeyleri ile akademik güdülenmeler arasindaki ilişkinin incelenmesi. *D.E.Ü.İlâhiyat Fakültesi Dergisi, 25*, 213-239.