

EMOTIONAL INTELLIGENCE AND TRANSFORMATIONAL LEADERSHIP OF GYMNASIUM TEACHERS'

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Abstract. *The article deals with the associations of transformational leadership of gymnasium teachers' and their emotional intelligence. The operationalization of the concept of emotional intelligence in this study is viewed as the interaction of four determinants: Self-Emotional Appraisal (SEA); Others' Emotional Appraisal (OEA); Regulation of Emotion (RE); Use of Emotion (UE). The aim of the article is to explore how profile gymnasium teachers' transformational leadership is associated with their emotional intelligence dimensions.*

Wong and Law's Emotional Intelligence Scale (WLEIS) was used to measure the emotional intelligence of gymnasium teachers. Multifactor Leadership Questionnaire (MLQ) was used in the research of leadership expression. The collected data were analyzed using structural equation modelling (SEM). The findings confirm that the transformational leadership is statistically significantly associated with emotional intelligence of gymnasium teachers from Lithuania. SEM analysis revealed that the use of emotions is statistically significantly associated with gymnasium teachers' transformational leadership.

Keywords: *emotional intelligence; transformational leadership.*

Introduction

The teaching success and good results are often associated with effective school leader leadership, but teacher leadership is becoming an increasingly popular topic among policy makers and influential organizations contributing to education reform (Wenner & Campbell, 2017). Transformational leadership behaviors of teachers as an effective behavioral pattern can be useful in solving different problems in school and keeping it in a dynamic form (Cansoy, 2020). Transformational leadership is based on example and morality, awareness of the goal pursued, and team focus. Transformational leadership is a multidimensional construct consisting of different dimensions: an idealized effect (i.e., charisma), inspirational motivation, intellectual stimulation, and individual interest (Avolio, Bass, & Jung, 1999).

One of the essential components of leadership is recognizing and managing one's own and other people's emotions. Successful leadership is inseparable from the perception of properly used emotions and the emotional reactions of followers

(Mayer, Salovey, & Caruso, 1999). Without understanding the feelings of their followers, leaders will not be able to communicate, understand and motivate them. It is also important to understand how emotions relate to each other. Finally, emotion management is very important for a leader who wants to attract the followers (Wang et al., 2018).

Scholars analyze the relationship between the leadership and emotional intelligence of universities and other educational institutions. However, there is a lack of research on the transformational leadership of gymnasium teachers and its links to emotional intelligence. The situation discussed highlights **the scientific problem**, which is formulated as a question: How does the emotional intelligence of gymnasium teachers relate to their transformational leadership?

The study aims at contributing to this body of literature by analyzing the relationship between the transformational leadership and the emotional intelligence of teachers.

The aim of the research is to reveal the relationship of emotional intelligence and transformational leadership of gymnasium teachers' and to highlight the influence of emotional intelligence on transformational leadership.

Literature review

The teachers, compared to other professions, are much more likely to show their emotions (both negative and positive), which affect their mental health, job satisfaction, and self-efficacy (Zurita-Ortega et al., 2019). It is important for teachers to know their own and others' emotions, as well as to motivate themselves properly, to manage their own and others' emotions.

Teachers who know their emotions and can control them as well as understand other people's emotions and manage them skillfully are more advantaged in their professional lives (Abiodullah, Dur-e-Sameen, & Aslam, 2020; Yildizbas, 2017). People who know their emotions can spend their life more easily and happily and such type of people are more satisfied than other people (Zeidner, Matthews, & Roberts, 2011).

Researchers refer to emotional intelligence (EI) as a set of abilities or perceptions concerning the way individuals identify, make use of, deal with, and process emotions (Petrides, 2011). Boyatzis (2009) states that "(a) an emotional, intelligence competency is an ability to recognize, understand, and use emotional information about oneself that leads to or causes effective or superior performance; and (b) a social intelligence competency is the ability to recognize, understand and use emotional information about others that leads to or causes effective or superior performance" (p. 757). Scholars have developed a four-branch emotional intelligence model: Perceive emotion, Use of emotion to

facilitate thought, Understand emotions, and Manage emotion (Mayer, Caruso, & Salovey, 1999).

The first dimension (perceived emotion) of EI is defined as the ability to perceive and identify emotions in oneself and others. When focused on the self, this dimension is related to greater emotional awareness, but when focused on other people, this dimension encompasses what is meant by affect sensitivity (Mayer, Caruso, & Salovey, 1999). The second dimension (Use of emotion to facilitate thought) of EI concerns the ability to use emotions to focus attention and to think more rationally, logically, and creatively. The third dimension (Understand emotions) of EI reflect the capacity to analyze emotions, to understand the progress of emotions, and transition from one to the other. The fourth dimension (Manage emotion) of EI concerns the ability to regulate moods and emotions in oneself and in other. When managing one's own emotions, people must be able to monitor, and label their emotions (Mayer, Caruso, & Salovey, 1999).

Despite the previously mentioned EI models, exist others EI models. According to Wong and Law (2002), emotional intelligence consists of four dimensions: Self-Emotion appraisal (individuals' ability to understand self-emotions and express them naturally), Other's Emotion Appraisal (individuals' ability to understand the emotions of people around them), Use of Emotion (individuals' ability to use their emotions towards constructive activities) and Regulation of Emotion (individuals' ability to regulate their emotions) (Wong & Law, 2002).

Methodology

The research methodology. The study is focused on social cognitive theory. This theory highlights personal factors (cognition, affect); behavior, and environmental influences (Bandura, 2001). Social cognitive theory has four cornerstones that play an important role in media environment: human agency, human capabilities, vicarious learning, and self-efficacy (Bandura, 2001; Khang et al., 2014). According to Social cognitive theory the followers observe a behavior of leaders and the consequences of their behavior, the followers remember the sequence of events and use this information to guide subsequent behaviors.

Method of research. The study was conducted in Lithuania. Gymnasium teachers participated in the study. Gymnasiums are an integral part of the Lithuanian education system, including basic and secondary education. The basic education program consists of two parts. Part I of the program lasts 4 years (includes grades 5-8). Part II lasts 2 years and includes grades 9-10 (or grades 1-2 of the gymnasium). Basic education is acquired after completing the basic

education program and passing the basic education achievement test. The secondary education program is of two years. It is provided in grades 11-12 (or grades 3-4 of the gymnasium). It consists of compulsory and optional general education and possible vocational training modules. The study involved teachers of various subjects working in grades 1-4 of the gymnasium.

The influence of emotional intelligence dimensions on transformational leadership of gymnasium teachers from Lithuania was disclosed by testing four hypotheses on path analysis:

H₁. The self-emotions appraisal (SEA) directly affects the transformational leadership of gymnasium teachers.

H₂. The other's emotions appraisal (OEA) directly affects the transformational leadership of gymnasium teachers.

H₃. The use of emotions (UE) directly affects the transformational leadership of gymnasium teachers.

H₄. The regulation of emotions (RE) directly affects the transformational leadership of gymnasium teachers.

The instrument of the quantitative research. Multifactor Leadership Questionnaire (MLQ) was used in the research of the leadership expression (Bass and Avolio, 1990). The current article explores exclusively the transformational leadership style. Wong and Law Emotional Intelligence Scale (WLEIS) was used to measure the emotional intelligence of gymnasium teachers (Wong, & Law, 2002).

The sample and sampling of the quantitative research. The research sample (the confidence interval being 5%, and the confidence level being 95%) was reliable as it involved 304 gymnasium teachers. The total population was 12644 of gymnasium teachers (Lithuanian education in numbers, 2018). Therefore, the probability (confidence level) is 95%, so the obtained data can shift only by 5% from the population parameters (confidence interval). The representativeness of the study sample was ensured by using a probability random sample. The teachers were involved in the study through social networks.

Results

This research aimed to measure the influence of the emotional intelligence dimensions on the gymnasium teachers' transformational leadership. For this purpose, simple linear regression and path analysis procedure was chosen. Simple linear regression allows summarizing and studying relationships between two continuous (quantitative) variables. The path analysis procedure was chosen to test the four hypotheses about the influence of the emotional intelligence on the transformational leadership of gymnasium teachers (Figure 1). The variables of all components were directly observable.

When performing a regression analysis, the normality test of Kolmogorov-Smirnov was used in this study (Table 1). This test was conducted to determine if the data were normally distributed. The results of Kolmogorov-Smirnov test showed that the data of the gymnasium teachers' emotional intelligence dimensions were normally distributed: ($p_{PE} = 0.0913 > 0.05$), ($p_{UEF} = 0.122 > 0.05$), ($p_{UE} = 0.166 > 0.05$), ($p_{ME} = 0.910 > 0.05$) (Table 1). The normality of the transformational leadership variables was also confirmed by Kolmogorov-Smirnov test (Table 2).

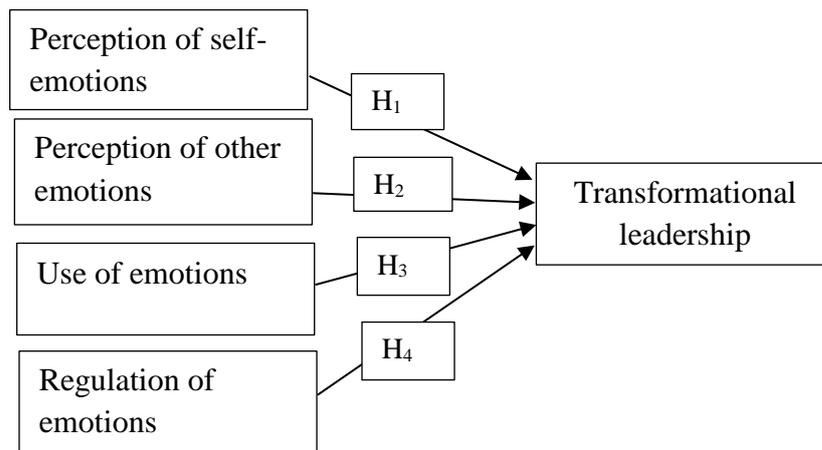


Figure 1 The Theoretical Model of the Emotional Intelligence and Transformational Leadership of Gymnasium Teachers

Table 1 Results of the One-Sample Kolmogorov-Smirnov Normality Test of the Emotional Intelligence Dimensions of Gymnasium Teachers

		PE	UEF	UE	ME
N		304	304	304	304
Normal Parameters ^{a,b}	Mean	94.923	90.201	90.712	83,202
	Std. Deviation	14.893	13.152	17.726	18,275
Kolmogorov-Smirnov Z		1,181	.865	1.193	.910
Asymp. Sig. (2-tailed)		.091	.122	.166	.311

a. Test distribution is Normal. b. Calculated from data.

A simple linear regression was used to predict the gymnasium teachers' transformational leadership based on their emotional intelligence. A significant regression equation was found ($F(1,241) = 49.187, p < .001$). The coefficient of determination (R^2) indicates that 30.1% of the variation in transformational leadership can be explained by the model containing only emotional intelligence. This coefficient is sufficient, so the predictions from the regression equation are reliable. The coefficient of gymnasium teachers for use of emotions was 0.241

and the constant number was 49.743. Based on these data, the regression line equation could be written as follows:

$$\text{Transformational leadership (y)} = 49.743 + 0.241 (\text{use of emotions}) (x) (1)$$

Table 2 Results of the One-Sample Kolmogorov-Smirnov Normality Test of the Transformational Leadership of Gymnasium Teachers

	Idealized Influence	Idealized Influence	Inspirational Motivation	Intellectual Stimulation (IS)	Individualized Consideration (IC)
Mean	59.791	64.894	63.497	62.722	67.011
Std. Deviation	10.841	10.211	9.892	9.182	9.904
Kolmogorov-Smirnov Z	1.332	1.551	1.222	1.987	1.714
Asymp. Sig. (2-tailed)	.987	.941	.998	.527	.558

Table 3 Simple Linear Regression Analysis: the Gymnasium Teachers' Transformational Leadership and Emotional Intelligence

Model		Unstandardized Coefficients		Standardized Coefficients		95.0% Confidence Interval for B		
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	49.743	5.190		9.558	.000	39.476	60.013
	Use of emotions (UE)	.108	.046	.241	2.321	.022	.016	.199
	Self-emotions appraisal (SEA)	.049	.055	.094	.883	.379	.061	.158
	Other emotions appraisal (OEA)	.033	.063	.055	.520	.604	.092	.158
	Regulation of emotions (ME)	.042	.042	.098	.996	.321	.125	.041

a. Dependent Variable: transformational leadership

The equation (1) shows that if the gymnasium teachers' emotional intelligence dimension (use of emotions) increased by 1 unit, then the teachers' transformational leadership would increase by 0.241 units. Therefore, the

gymnasium teachers' emotional intelligence dimension (UE) had a positive influence on their media literacy (Table 3).

The theoretical model (Figure 1) was tested using the path analysis procedure with the software AMOS 17. The measurement model fit the data well (Table 4).

The main purpose of this study was to reveal the role of the emotional intelligence of the gymnasium teachers in their transformational leadership. We examined the direct effects for significance and magnitudes (Table 5). We found that only one direct path was significant in the final model (Table 5). The significant path coefficient in the model was: the emotional intelligence dimension (use of emotions) effected transformational leadership ($\beta = 0.108$).

Table 4 The Fitness of Items of Transformational Leadership and Emotional Intelligence of Gymnasium Teachers

	Absolute fit index			Relative fit index		
	χ^2/df	RMSEA	GFI	IFI	TLI	CFI
Assumed model	5.212	.073	.907	.999	.991	.995
Acceptance value	1-5	<.08	>.80	>.90	>.90	>.90

Table 5 The Hypothesis Testing the Gymnasium Teachers' Transformational Leadership and Emotional Intelligence: Direct Effect

Hypothesis	Paths	Paths coefficients	P	R ²	Results	Effect
H1. The self-emotions appraisal (SEA) directly affects gymnasium teachers' transformational leadership.	SEA → Transformational leadership	.049	.370	.080	Not support	Direct
H2. The other's emotions appraisal (OEA) directly affects gymnasium teachers' transformational leadership.	OEA → Transformational leadership	.033	.598	.117	Not support	Direct
H3. The use of emotions (UE) directly affects gymnasium teachers' transformational leadership.	UE → Transformational leadership	.108	.018	.307	Support	Direct
H4. The regulation of emotions (RE) directly affects gymnasium teachers' transformational leadership.	RE → Transformational leadership	.042	.312	.032	Not support	Direct

The explanatory power of the gymnasium teachers' transformational leadership model (Figure 1; Table 5) was assessed by calculating the coefficient of determination (R^2) of the emotional intelligence dimensions: PE; UEF; UE; ME (Table 5). The data indicated that 30.7% of the variation in the gymnasium teachers' transformational leadership was accounted by their emotional intelligence dimension UE. The small R^2 values did not support hypothesis: H_1 ; H_2 , H_4 (Table 5).

Discussion

The emotional intelligence is one of the factors that determines successful or unsuccessful leadership (Bagshaw, 2000). The objective of this study was to determine the influence of emotional intelligence on the transformational leadership of gymnasium teachers. Gymnasium teachers can successfully transform students' behavior only by being able to control emotions while achieving the educational goal. The ability to recognize and use emotions determines successful transformational leadership (Naznin, 2013). Scholars state that the leaders who can recognize their own and other people's emotions demonstrate a transformative type of leadership (Hajnci & Vučenović, 2020; Sunindijo, 2012). On the other hand, transformational leadership enhance emotional intelligence (Wang, et al., 2018).

Transformational leadership and emotional intelligence are multidimensional constructs. The research about the associations between the dimensions of transformational leadership and emotional intelligence reveals the links between emotional intelligence and transformational leadership, intellectual stimulation, and idealized influence in particular (Barbuto & Burbach, 2006). Researchers argue that emotional intelligence determines all the components of transformational leadership (Gardner & Stough, 2002). High emotional intelligence transforms, inspires and encourages followers, shows them the right way, and increases their self – confidence (Afzal, Khan, & Mujtaba, 2018). Emotional intelligence and transformational leadership are related through inspiring motivation. Leadership skills grow by perceiving and regulating emotions (Leban & Zulauf, 2004).

Scholars state that transformational leadership depends mainly on intellectual stimulation in university teachers, whereas intrinsic motivation is more relevant at the lower educational levels (Zurita-Ortega et al., 2019). They observe that transactional leadership is negatively related to some emotional intelligence dimensions, given the relevance of obtaining power in this dimension (Seydi Shahivand & Moradkhani, 2020; Zurita-Ortega et al., 2019).

Our research contributed into the associations of transformational leadership and emotional intelligence and highlights association between the use of emotions in educational practice and transformational leadership. Our research result corresponds to the main ideas of a large study about the associations of the teachers' transformational leadership and the emotional intelligence (Seydi Shahivand & Moradkhani, 2020). Scholars argue that there is a positive and direct relationship between the levels of emotional intelligence and transformational leadership in non-university teachers (Seydi Shahivand & Moradkhani, 2020).

Our study is based on the context of only one country. This is a limitation of this study. It would be appropriate to repeat this study in the context of another country.

Conclusions

We analysed the phenomenon of transformational leadership of the gymnasium teachers of Lithuania. The results of the linear regression analysis reveal the influence of the emotional intelligence on the transformational leadership of gymnasium teachers. Therefore, the gymnasium teachers' emotional intelligence has a positive influence on their transformational leadership.

The result of the path analysis reveals that the various emotional intelligence dimensions (SEA), (OEA), (UE), (RE) differently effect the transformational leadership of the gymnasium teachers. Only one dimension – the use of emotions (UE) in educational practice – statistically significantly influences the transformational leadership of the gymnasium teachers.

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