International Journal of Educational Research Review

Examination of The Relationship Between Levels of Primary School Teachers' Autonomy and Their Learner Autonomy Supportive Behaviors

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Article History:
Received 24.12.2022
Received in revised form 05.01.2024
Accepted
Available online 09.01.2024

"The aim of the present study is to examine the relationship between the autonomy levels of primary school teachers and their behaviors supporting learner autonomy. The study sample was selected employing the voluntary response sampling method, one of the non-random sampling methods. Scale forms were distributed to 879 primary school teachers working in public schools in Bornova, İzmir. The study was conducted with 537 primary school teachers who voluntarily participated. The study was designed in the quantitative research relational survey (correlational) model. The data were analyzed using SPSS 25.0 (Statistical Package for Social Sciences) software. The results revealed that the autonomy level of primary school teachers was at a medium level, and their behaviors supporting learner autonomy were found to be at a low level. The model, predicting behaviors supporting learner autonomy, was found to be significant."

Keywords: Self-determination theory, positive education, constructivist education, autonomy, primary school teachers.

INTRODUCTION

The fact that the constructivist approach, which is the subject of many educational scientific research studies conducted in Türkiye, cannot be applied to the desired extent, is a problem not only for Türkiye, but also for various developed countries that make huge investments in the field of education (Constructivism, 2021).

It could be suggested that approaches that consider these problems from more essential points should be developed in order to solve some problems. Various explanatory models of child development have been put forward; however, Urie Bronfenbrenner's ecological model (BEST, 2021) differs in its wider consideration of environmental factors. Therefore, when the focal point of the problem involves individuals and their education, it cannot be perceived separately from environmental, and psychological factors, as well as cultural and sociological phenomena. Besides, the changes made for the sake of the solution of the problems should be structural, rather than superficial. Changing only certain components of a system is short-lived and inconclusive. Over time, these short-term changes in the subcomponents are transformed back to their previous and undesirable states by the basic dynamics of the system.

Situation of the Problem

Constructivist comprehension predicts the provision of a flexible and autonomous learning experience for students. So, can teachers with a low level of autonomy be expected to provide students with an environment that would enhance their autonomous learning experiences? (Driver, 1988). It is thought that a positive education model to be applied in the perspective of Self-Determination would contribute to the student-centered feature of the constructivist understanding and may mitigate the implementation problems of the constructivist approach (Noble & McGrath, 2015). This research study, with all its components, presents a unique and unprecedented solution for the challenge of effectively applying the constructivist education approach.

To put it more concisely, the present study assumes that it would be possible to build learner autonomy by building the autonomy of the teachers in the first place, suggesting a more holistic perspective in the presence of the problem due to the application of the constructivist understanding. While the assumption that learner autonomy would be enhanced when teacher autonomy is increased seems quite brilliant in theory, different situations may occur in practice. As such a process might involve unaccountable dynamics, the autonomy levels of teachers and students should be measured first, and then the relationship between autonomy levels should be investigated. Therefore, the present study questions whether or not a significant relationship exists between teacher autonomy and learner autonomy, and whether or not teacher autonomy predicts learner autonomy.

*This study constitutes a portion of the master's thesis titled "Examination of the Relationship Between the Autonomy Levels of Primary School Teachers and their Behaviors Supporting Student Autonomy" written by Mehmet Uğur Kutluer, under the supervision of Assoc. Dr. Aylin Mentiş. Dokuz Eylul University, Izmir, Türkiye.

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Aim of the Study

The aim of the present study is to investigate the relationships between the levels of autonomy and learner autonomy supportive behaviors of primary school teachers, by seeking answers to the following questions:

(1) What is the level of autonomy of primary school teachers in the process of the teaching profession?
(2) What is the level of primary school teachers' learner autonomy supportive behaviors?
(3) Do the autonomy levels of primary school teachers significantly predict their levels of exhibiting supportive behaviors toward learner autonomy?

LITERATURE REVIEW

Positive Education

The importance of psychology very well-known for academics studying education and education practitioners. Psychology, being a field of science that involves human behavior, serves as a crucial data source for the field of education. It is also apparent that various learning theories have emerged under the influence of psychological approaches. Besides all these, education and psychology have begun to be associated even more deeply throughout the past quarter century. Along with the positive education approach brought forth by Martin Seligman, elected president of the American Psychological Association (APA) in 1998, and some other scientists, the relationship between psychology and education began to be considered in a more integrated structure. Studies conducted in relation to this approach have indicated a direct bond between the success of educational practices and certain associated components and psychological well-being. Practices based on this educational approach reveal that students' psychological well-being is considered essential and the curriculum includes the processes that support their psychological well-being. It can also be claimed that these educational practices actually reveal a therapeutic education process. The positive educational approach, developing a therapeutic educational process, is based on bringing positive psychology practices together with educational processes (Seligman et al., 2009).

Today, positive education has been global accepted and is continually expanding (Seligman & Adler, 2019: 52). Different countries, situated in diverse geographical locations and characterized by distinct cultures, interpret positive education in alignment with their unique educational requirements. Alongside the PERMA well-being model, Tecmilenio University has incorporated wellness, focusing on physical health, mindfulness, a widely used concept for conscious awareness, and character strengths as integral aspects (Seligman & Adler, 2019). The initial application of positive education took place at Geelong Grammar School (Seligman & Others, 2009). Bhutan is a pioneer of an extensive positive education initiative that evaluates the happiness of its citizens using the Gross National Happiness measurement, similar to economic metrics in other countries. Like the positive education practices worldwide, there has been widespread multi-stakeholder engagement in aligning education policies with positive education principles (Adler, 2016).

In 2016, the University Union of the United Kingdom (Universities UK - UUK) launched a mental health program with a positive educational impact. The government also allocated a considerable budget to the "Time to Change" campaign, aimed at promoting mental health (Seligman & Adler, 2019: 52). Gateway Community College in the United States has implemented the "Character-Connection-Care-Career-Contribution" program, encompassing the "Five C" components, which prioritized well-being throughout the entire school system. This university aspires to be recognized as the world's first "Well-being Community College" (Seligman & Adler, 2019: 52).

Self-Determination Theory

Self-Determination theory is a psychology theory that deals with the basic needs for well-being in the context of autonomy (Deci & Ryan, 1985). Self-Determination is not only a psychology theory; but it has educational research and implementations (Peters, Calvo, & Ryan, 2018). Moreover, the results obtained from research on education within the theoretical framework of Self-Determination render Self-Determination highly crucial for education. The notion that knowledge and virtues learned by students on their own choices would be more likely to persist throughout their lives after graduation and that it would also contribute to the well-being of students is a factor that makes Self-Determination crucial for education. In an educational environment where learner autonomy is preserved, the development of individuals with the potential to influence the society can be facilitated. It is also thought that this approach would help preserve the continuity of the knowledge and virtues acquired by all individuals. Self-Determination Theory, established by Edward

Deci and Richard Ryan, asserts that individuals are born with an intrinsic motivation towards their own interests and potentials, and emphasizes the importance of fostering this instinct motivation. Besides, it states that the basic needs for an individual's well-being are autonomy, connection, and competence. However, Self-Determination Theory, on which many research studies have been conducted since the 70s, stands beyond being such a simply explained theory. This theory has developed mini-theories within itself, the number of which has increased over the years. These mini-theories consist of Cognitive Evaluation Theory (CET), Organismic Integration Theory (OIT), Causality Orientations Theory (COT), Basic Psychological Needs Theory (BPNT), Goal Content Theory (GCT), and Relationships Motivation Theory (RMT) (SDT, 2021).

Fostering student decision-making and critical thinking, cultivating a warm, caring, and respectful demeanor, this self-determined education establishes an environment aimed at enhancing students' competencies, providing feedback, and presenting appropriately challenging problems (Niemiec & Ryan, 2009). In a groundbreaking longitudinal study focusing on classroom educational practices, involving 500 8th-grade students, autonomy support was identified as a contributor to students' academic success (Jang, Kim & Reeve, 2012).

Two empirically grounded longitudinal studies, encompassing five teachers and two students, demonstrated that both student and teacher scores in learning and teaching increased following educator training to support autonomy (Cheon, Reeve & Vansteenkiste, 2020). Another experiment, involving autonomy support training for selected teachers, revealed a more autonomy-supportive attitude among trained teachers, leading to increased enthusiasm for school in their classes (Reeve, Jang, Carrell, Jeon & Barch, 2004).

Another separate experiment found that nine young individuals, instructed by teachers trained in autonomy-supportive methods, reported more positive educational experiences (Su & Reeve, 2011). Notably, autonomy is not exclusive to the self-determination theory; it holds significance in the constructivist approach, emphasizing the centrality of students in educational processes and supporting learner autonomy.

Constructivist Learning Approach

The constructivist approach, supported by Jean Piaget, J.S. Bruner, L.S Vygotsky and Von Glasersfeld, emphasizes a student-centered educational process. The comprehension offered by the constructivist approach to education, unlike conventional education approaches, concentrates on the concept of learning rather than teaching. Classical approaches that exhibit a positivist educational manner concentrates on the extent to which knowledge overlaps with perceived reality. This concentration assumed importance on the accurate transfer of knowledge, and thus, supported teacher-centered practices. This meant studying on how to better reflect the curriculum, which is the main source of the teacher's knowledge. Nevertheless, the constructivist approach, which focuses on the concept of learning, emphasizes that knowledge is built within a differentiation stemming from one's learning experiences (Yurdakul, 2020). This paradigm shift has enabled a student-centered understanding to replace teacher-centered understanding in educational processes. Of course, the extent to which the change in understanding can be reflected in practice is a separate issue.

Numerous studies worldwide and in Türkiye have delved into the constructivist learning approach. According to Piaget (1978), the introduction of the constructivist learning approach marked a shift, empowering students to actively participate in the teaching process, a departure from their passive role in the past. Vygotsky (1978), influenced by Piaget, emphasized the significance of interactive dynamics between students and teachers, favoring a view where neither party is strictly confined to an active role.

Glaserfeld (1996) posited that knowledge is inherently subjective, advocating for an instructional focus on cognitive development rather than mere behavioral and skills-based training. Shah's (2019) research uncovered misinterpretations and erroneous applications related to the constructivist learning approach. Vintere's (2018) study demonstrated that the constructivist approach in mathematics teaching elevated competencies essential for sustainable development.

Neutzling, Pratt, and Parker's (2019) research underscored the pivotal role of teaching time in structuring learning approaches. Lam, Ng, Tse, Lu, and Wong's (2020) study highlighted how e-learning technology, within the constructivist framework, enhanced active learning, student-centered learning, peer learning, personalized learning, and differentiated learning.

Lüle Mert's (2018) work emphasized the crucial role of constructivist learning applications in fostering comprehension skills. Eskici and Özen's (2018) study unveiled a significant correlation between teachers' self-

efficacy perceptions and their attitudes towards the constructivist approach. Tanık's (2020) research delved into the attitudes and qualification levels of classroom teachers regarding the constructivist education model.

Bağçeçi, Başaran, Şahin, and Doğan's (2020) research resulted in the development of a constructivist teacher performance evaluation scale for the teaching and learning process. Korkmaz and Özen's (2019) study indicated that a teacher employing a constructivist learning environment in the classroom could manifest the expected and perceived characteristics of teacher leadership.

The present study examines the relationship between the issue of supporting learner autonomy, which is one of the main application problems of the constructivist approach, and the level of the basic need for teachers' autonomy within the framework of Self-Determination theory. Fulfilling a psychological basic need in educational practices seems possible within the positive education model.

METHOD

Participants

The population of the study consists of 879 primary school teachers, both male and female teaching students at different levels (1st, 2nd, 3rd, and 4th grades). Voluntary sampling method, one of the non-random sampling methods, was employed to determine the study sample (Alvi,2016). Voluntary sampling is a sampling method that is determined later, and after reaching the entire population, the volunteers constitute the sample. Scale forms were shared with 879 primary school teachers. The study was conducted with the voluntary participation of 537 primary school teachers.

Table 1 Distribution of Teachers by Gender

Gender	N	%
Female	422	78.5
Male	115	21.5
Total	537	100.0

Table 1 indicates that 79% of the teachers included in the sample are female, whereas 21% are male. Accordingly, it can be asserted that the majority of the teachers who participated in the research are women.

Instrument and procedure

The model of this research study, which investigates the relationship between the autonomy levels of primary school teachers and their supportive behaviors toward learner autonomy, was designed within the quantitative research relational survey model (Karasar, 2019). The data were collected through "The Teacher Autonomy Scale for Turkish Teachers -TAST", developed and validated by Ulaş & Aksu (2015) with the participation of primary school teachers and "The Learner Autonomy Support Scale-LASS" developed and validated by Oğuz (2013) as well as personal information forms. TAST is a five-point Likert-type scale with 18 items consisting of 3 factors: decision-making regarding educational programs, planning and implementation of instruction, and professional development. The items in the scale are graded as follows: "1-Not at all, 2-Very little, 3-A little, 4-Quite much, 5-Completely". LASS is a five-point Likert-type scale with 16 items having a three-factor structure and these factors are formed as "Emotional and thought support" (7 items), "Learning process support" (5 items), "Assessment support" (4 items). The items in the scale are graded as follows: "1-Always, 2-Often, 3-Sometimes, 4-Rarely, 5-Never".

Data analysis

The data were analyzed using SPSS 25.0 (Statistical Package for Social Sciences) for Windows software. The arithmetic mean was used to determine the levels of teachers' autonomy and learner autonomy supportive behaviors. Relationships among variables were investigated by conducting Pearson correlation analysis and multivariate regression analysis.

RESULTS

In this part, findings and interpretations arising from the methodology employed in the research are discussed. Results elucidating the sub-problems and recommendations developed based on these findings are also presented.

Reliability

Table 2 Cronbach's Alpha Results

Sub-dimensions	Cronbach's Alpha	Items
Decision-making regarding educational programs	.89	3
Planning and implementation of instruction	.96	11
Professional development	.93	4
Emotional and thought support	.97	7
Learning process support	.95	5
Assessment support	.95	4

Table 2 shows the values we calculated for the present study. All sub-dimensions in both scales seem quite reliable. Accordingly, it can be claimed that the analysis results in the study would be reliable.

Descriptive analysis

Table 3 Autonomy Levels of Primary school teachers

Autonomy Level Items	Never		Very little		A little		Quite much		Completely		Mean	SD
	n	%	n	%	n	%	n	%	n	%		
I feel autonomous in determining the goals and behaviors of the subjects I would teach.	57	10.6	70	13	111	20.7	159	29.6	140	26.1	3.47	1.29
I feel autonomous in choosing the subject (contents) for the daily/yearly plans I would implement.	55	10.2	95	17.7	118	22.0	150	27.9	119	22.2	3.34	1.28
I feel autonomous in choosing the activities that we would do with the students in the classroom.	23	4.3	35	6.5	85	15.8	197	36.7	197	36.7	3.95	1.08
I feel autonomous in choosing the teaching methods and techniques I would use in the classroom.	20	3.7	33	6.1	73	13.6	188	35.0	223	41.5	4.04	1.06
I feel autonomous in preparing lesson plans.	38	7.1	42	7.8	139	25.9	167	31.1	151	28.1	3.65	1.17
I feel autonomous in choosing the time when in-service training would be held.	140	26.1	71	13.2	150	27.9	114	21.2	62	11.5	2.79	1.34
I feel autonomous in choosing the measurement methods I use in the classroom.	23	4.3	52	9.7	90	16.8	193	35.9	179	33.3	3.84	1.12

I feel autonomous in determining the homework to give to my students.	25	4.7	28	5.2	70	13.0	191	35.6	223	41.5	4.04	1.08
I feel autonomous in planning extracurricular activities.	36	6.7	40	7.4	120	22.3	175	32.6	166	30.9	3.74	1.17
I feel autonomous in choosing the place/place where in-service trainings would be held.	179	33.3	88	16.4	115	21.4	103	19.2	52	9.7	2.55	1.37
I feel autonomous in determining the seating arrangement of students.	26	4.8	12	2.2	47	8.8	178	33.1	274	51.0	4.23	1.03
I feel autonomous in choosing the person/s who would provide in-service training.	201	37.4	65	12.1	126	23.5	98	18.2	47	8.8	2.49	1.38
I feel autonomous in determining the criteria by which students are rewarded or punished.	31	5.8	33	6.1	128	23.8	165	30.7	180	33.5	3.80	1.14
I feel autonomous in choosing the subjects of the in-service training I would receive.	95	17.7	74	13.8	145	27.0	151	28.1	72	13.4	3.06	1.29
I feel autonomous in choosing the teaching materials I would use in the classroom.	32	6.0	40	7.4	73	13.6	179	33.3	213	39.7	3.93	1.17
I feel autonomous in changing the physical layout of the classroom environment when necessary.	25	4.7	29	5.4	137	25.5	151	20.1	195	36.3	3.86	1.11

Based on the data presented in Table 5, it was determined that the mean score of teachers' autonomy is 3.60 and the total score value is 64.81. It is seen that the level of primary school teachers' autonomy is at a medium level.

Table 4 Levels of Learner Autonomy Supportive Behaviors of Primary school teachers

Items of Autonomy Supportive Levels	Always		Often		Sometimes		Rarely		Never		Mean	SD
	N	%	n	%	n	%	n	%	n	%		
To approach students with empathy (placing yourself in their shoes).	302	56.2	204	38	23	4.3	3	0.6	5	0.9	1.52	0.69
To allow students to express their learning problems.	394	73.4	128	23.8	7	1.3	3	0.6	5	0.9	1.32	0.62
To share the feelings and thoughts of the students regarding all kinds of choices (activity, material, method, etc.) in the learning process.	295	54.9	215	40	19	3.5	3	0.6	5	0.9	1.53	0.68
To share students' feelings and thoughts about their learning.	352	65.5	153	28.5	24	4.5	3	0.6	5	0.9	1.43	0.69
To encourage students to do extra-curricular studies (research, reading, projects, etc.) to improve their learning.	357	66.5	147	27.4	25	4.7	3	0.6	5	0.9	1.42	0.69
To provide students with feedback on their learning.	397	73.9	130	24.2	2	0.4	3	0.6	5	0.9	1.30	0.60
To encourage students to ask questions in the lessons.	440	81.9	87	16.2	2	0.4	8	0	0	8	1.5	0.60
To encourage students to self-use (authentic) real-life materials outside of the classroom.	329	61.3	178	33.1	19	3.5	5	0.9	6	1.1	1.47	0.71
To ensure that students receive help from individuals outside the classroom (mother, father, an expert, etc.) to support their learning.	313	58.3	140	26.1	68	12.7	10	1.9	6	1.1	1.61	0.86

To support students to carry out independent studies (practice, repetition, reading, summarizing, etc.) in the classroom by themselves.	368	68.5	129	24.0	31	5.8	3	0.6	6	1.1	1.42	0.73
To collaborate with students' families on issues associated with the learning process.	411	76.5	104	19.4	14	2.6	0	0	8	1.5	1.31	0.67
To help students in setting learning goals.	353	68.7	149	27.7	21	3.9	8	1.5	6	1.1	1.45	0.74
To allow students to assess each other's work.	254	47.3	202	37.6	69	12.8	9	1.7	3	0.6	1.71	0.80
To share student assessments of their learning.	303	56.4	191	35.6	34	6.3	3	0.6	6	1.1	1.54	0.74
To support their participation in decisions about measurement and assessment.	270	50.3	197	36.7	64	11.9	3	0.6	3	0.6	1.64	0.75
To allow students to assess their own works.	303	56.4	173	32.2	48	8.9	3	0.6	10	1.9	1.59	0.82

It is seen in Table 4 that the mean score of the primary school teachers for exhibiting the behaviors of supporting learner autonomy is 1.47, whereas the total score value is 23.48. It is observed that primary school teachers have a low level of exhibiting behaviors of supporting learner autonomy.

Multiple Regression Analysis

Table 5 Bilateral Relationships among Variables

	Exhibiting	Planning	Decision-making	Professional Development
Exhibiting	-	-	-	-
Planning	.01	-	-	-
Decision-making	-.05	.76**	-	-
Professional Development	.08	.52**	.67**	-

**p<.01

Exhibiting learner autonomy supportive behaviors and planning (r=.01, p>.05), making decisions about educational programs (r=-.05, p>.05), as well as professional development (r=.08, p >.05) were not found to be significantly related.

Table 6 Findings Regarding the Prediction of Exhibiting Learner Autonomy Supportive Behaviors

	B	*SH B*	*β*	*t*
Planning	.08	.06	.09	1.43
Decision-making	-.67	.20	-.25	-3.29*
Professional development	.36	.11	.19	3.38*
R^2		03		
Adjusted R^2		.02		

*p<.05

The model for predicting learner autonomy supportive was found to be significant (*F(3, 533)= 4.99, p<.05*). Among the dimensions of autonomy; decision-making about educational programs (*B=-.67, t=-3.29, p<.05*) and professional development (*B=.36 t=3.38, p<.05*) contribute significantly. A one-unit increase in teachers' decision-making levels regarding educational programs predicts a .67-unit decrease in exhibiting learner autonomy supportive behaviors. A one-unit increase in teachers' professional development levels predicts an increase of .36 units. The model explains 2% of the variance of exhibiting learner autonomy supportive behaviors.

CONCLUSION, DISCUSSION and SUGGESTIONS

The present study investigated the relationship between the levels of primary school teachers' autonomy and learner autonomy supportive behaviors. To this end, a response was sought to the question "What is the level of primary school teachers' autonomy in the process of realizing the teaching profession?" in the first place. It was determined that the mean score of teachers' autonomy was 3.60, whereas the total score value was 64.81. The level of primary school teachers' autonomy is seen to be at a medium level.

Secondly, an answer was sought to the question "What are the levels of school teachers' learner autonomy supportive behaviors?" and the mean score of the primary school teachers' learner autonomy supportive behaviors was determined as 1.47, whereas the total score value was 23.48. It is observed that the level of exhibiting learner autonomy supportive behaviors of primary school teachers is low.

Lastly, the question "Does the autonomy levels of classroom teacher candidates significantly predict levels of their learner autonomy supportive behaviors?" was tried to be answered. Exhibiting learner autonomy support behaviors, planning and implementing instruction (r=*.01, p>.05*), making decisions regarding educational programs (*r=-.05, p>.05*), and professional development (*r=.08, p >.05*) were not found to be significantly related. The model in predicting learner autonomy supportive behaviors was found to be significant (*F(3, 533)= 4.99, p<.05*). Among the dimensions of autonomy; decision-making regarding educational programs (*B=-.67, t=-3.29, p<.05*) and professional development (*B=.36 t=3.38, p<.05*) contribute significantly. A one-unit increase in teachers' decision-making levels about educational programs predicts a .67-unit decrease in exhibiting learner autonomy supportive behaviors. A one-unit increase in teachers' professional development levels predicts an increase of .36 units. The model explains 2% of the variance of exhibiting learner supportive autonomy behaviors. In the study conducted by Ataşbaş (2017), the relationship between teacher autonomy and the level of behaviors supporting learner autonomy, consistent with the findings of this research, emerged as a significant yet moderately negative predictive model, unlike the high levels observed in this study. In a study by Yazıcı (2016), the relationship between teachers' autonomy levels and behaviors supporting learner autonomy was found to be in the same direction and at a moderate level. This study is the third in Türkiye to explore the relationship between these two variables. Ataşbaş (2017) explained a similar outcome in his study through systemic patterning, attributing it to teachers feeling confined within certain patterns and perceiving themselves as curriculum guards due to rigid inspection systems. The existence of a comprehensive checklist proposal for transitioning to positive educational practices (Seligman and Adler, 2019) supports Ataşbaş's statements. A paradigm shift in education may be possible by integrating all components of the system with this paradigm. Although the autonomy levels of classroom teachers may be higher with the contribution of the specific context of their fields (Buyruk and Akbaş, 2021), a paradigm shift is needed throughout the system for it to contribute to behaviors supporting student autonomy. In a system shaped by a centralist understanding (Karatay, Günbey, and Taş, 2020; Buyruk and Akbaş, 2021), an increase in teacher autonomy may not lead to the enrichment of educational processes supporting student autonomy but rather a shift of power towards teachers from school management. Scientific studies show that a positive educational environment that supports student autonomy increases students' achievements and well-being (Cheon, Reeve, Vansteenkiste, 2020). However, achieving such a positive

educational environment requires the restructuring of all components of education, as seen in practical applications (Seligman and Adler, 2019). It can be said that the results of the research align with these realities.

Future studies can be conducted with different populations and samples to measure levels of autonomy and autonomy supportive behaviors. Furthermore, only a quantitative research method was employed in the present study. By carrying out new studies, it would be possible to employ qualitative research methods in these studies and to conduct mixed-pattern research studies.

Declarations

Conflict of Interest

No potential conflicts of interest were disclosed by the authors with respect to the research, authorship, or publication of this article.

Ethics Approval

The formal ethics approval was granted by the Social and Human Sciences Research and Publication Ethics Committee of Ege University.

Funding

No specific grant was given to this research by funding organizations in the public, commercial, or not-for-profit sectors.

Research and Publication Ethics Statement

The study was approved by Institute of School of Educational Sciences of Ege University, Türkiye (Approval Number. 39262). The study will not cause any mental or physical harm to the subjects and will not compromise their safety and right. "Examination of The Relationship Between Levels of Primary School Teachers' Autonomy and Their Learner Autonomy Supportive Behaviors" the following is fulfilled:

- This material is the authors' own original work, which has not been previously published elsewhere.
- The paper reflects the authors' own research and analysis in a truthful and complete manner.
- The results are appropriately placed in the context of prior and existing research.
- All sources used are properly disclosed.

Contribution Rates of Authors to the Article

Writing-Review & Editing: Mehmet Uğur Kutluer; Project Administration: Associate Professor Aylin Mentiş

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