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## Teachers' Learning Agility as a Predictor of Their Lifelong Learning Tendency\*

Ayça Kaya<sup>1</sup>

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### Abstract

This research aims to determine the effect of teachers' learning agility levels on their lifelong learning tendencies. In order to achieve this goal, the research was carried out on 230 teachers working in several schools in the Beşiktaş district of Istanbul (three primary schools, three secondary schools, three high schools) in the 2022-2023 academic year. The teachers participating in the research were determined by the convenient sampling method. "Learning Agility Scale" and "Lifelong Learning Tendency Scale" were used as data collection tools. The Learning Agility Scale consists of 23 items and four dimensions. The dimensions are mental agility, people agility, change agility, and result agility. The Lifelong Learning Tendency Scale consists of 17 items under the dimensions of willingness to learn and openness to development. The research data were analyzed using arithmetic mean, standard deviation, Pearson correlation analysis, and multiple linear regression analysis. As a result of the analysis, it was concluded that teachers' lifelong learning tendencies and learning agility are at high levels. At the end of the study, it was also concluded that teachers' learning agility levels are significant predictors of their lifelong learning tendencies.

**Keywords:** Openness to development, learning agility, willingness to learn, lifelong learning tendency

### 1. INTRODUCTION

Individuals who have witnessed various changes throughout the history of humanity have adapted to these changes in every period with their adaptation skills. However, individuals who could not adapt to changes faced with social and individual problems. The rapid development of technology led to changes in economic structures. This situation caused radical changes in many areas of life with the transition from industrial society to information society. These changes shaped the expectations of individuals from society and showed that individuals need new knowledge and skills to adapt to rapidly changing economic and social structures. In today's world, factors such as rapid technological developments, the changing business world, and global markets increased people's need for continuous learning. Individuals need to have lifelong learning skills to fulfill this need and adapt to the changes. In this context, the most crucial point of lifelong learning is

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<sup>1</sup>Assist. Prof. Dr., Haliç University, 0000-0001-7510-7708, [aycabagmenkaya@halic.edu.tr](mailto:aycabagmenkaya@halic.edu.tr)

taking responsibility for learning, or in other words, learning to learn (Limon, Kaya & Dilekci, 2021).

Lifelong learning is a purposeful learning process that an individual does formally, widely, and naturally and that develops knowledge and skills in personal, cognitive, social, and business life (Güleç, Çelik & Demirhan, 2012). Lifelong learning is defined as individuals' voluntary change and development for personal or professional reasons (Toprak & Erdoğan, 2012). According to Candy, Lifelong learning is an individual's desire to acquire new knowledge and improve his skills in different ways at any time of his/her life (Candy, 2002). As Karaman (2012) states, every stage of life reflects a combination of formal and non-formal education. In this sense, lifelong learning refers to the broad process from birth to death. Fischer (2000) defined lifelong learning as the ongoing participation in acquiring and applying knowledge and skills in the context of self-directed problems. In another definition by Candy, lifelong learning is a process that supports individuals to acquire the necessary knowledge and skills to continue their education after formal education (Candy, 2002).

In the 21st century, in addition to the development of science and technology, the standards of business and professional life changed, the expectations of educational organizations and individuals differentiated, and lifelong learning became important (El Mawas & Muntean, 2018). The primary purpose of lifelong learning is self-improvement. Thus, individuals improve their quality of life by strengthening their capacities. Lifelong learning is essential for individuals to develop themselves, gain new experiences, and adapt to changing world conditions. In this process, lifelong learning has some advantages, such that individuals can improve their learning skills and increase their problem-solving skills and self-confidence. According to Akpınar (2020), we face lifelong learning in many aspects of our lives. It is possible to say that lifelong learning is a dynamic concept not limited to environments such as home, work, and school but can be sustained regardless of personal characteristics such as age, social status, and education.

In today's organizations, learning agility has been a variable that impacts performance and lifelong learning (Lombardo & Eichinger, 2000). While Lombardo and Eichinger (2000) and De Meuse, Dai, and Hallenbeck (2010) define learning agility as “the desire to learn from experience and the ability to do so, and then to adapt this learning successfully to new or first-time applied conditions”, DeRue, Ashford, and Myers (2012) define it as “a person's ability to quickly assess a situation and flexibly move their mind that a learning experience is taking place”. Learning agility encompasses a willingness to learn that includes actively seeking opportunities for personal development and being open to feedback, new ideas, and perspectives (Allen, 2016). According to Gravett and Caldwell (2016), there is much interaction within organizations. Therefore, learning agility comes to the fore in establishing relationships that create a compelling vision, undertaking difficult and unpleasant tasks, developing unity in dysfunctional teams, and transforming conflicts into cooperations. According to Mitchinson and Morris (2014), spending time for carefully analyzing past experiences and understanding the lessons learned from previous failures are crucial. This practice is more valuable than quickly switching from one task to another and only focusing on the next challenge. By doing this, individuals can increase their learning agility. When the literature is checked, it is seen that lifelong learning qualifications are examined under eight headings within the framework of the qualifications published by the European Commission in 2007 (Toyoğlu & Doğan, 2020). These headings are communication in native and foreign languages, basic mathematics and science-technology, digital skills, citizenship, learning to learn, recognizing cultures, initiative and entrepreneurship, and self-expression skills. All these competencies coincide with dimensions of learning agility: mental, people, change, and result (Kaya, 2019). When the characteristics of individuals with learning agility are examined, it is seen that learning agility is not only related to performance but also to the long-term potential of the individuals (Eichinger & Lombardo, 2004). Therefore, it can be stated that having long-term

potential is related to lifelong learning. As a result, it can be considered that learning agility is directly related to individuals' lifelong learning tendencies. Lifelong learning tendency predicts learning agility, and lifelong learning tendencies will increase as individuals' learning agility levels improve.

In today's world, where information changes rapidly, teachers, who play a critical role in education, must be open to innovations and lifelong learning and transfer these features to students. They need to be information providers who constantly update themselves and learn new skills for their development. They also need to be information providers who constantly update themselves and learn new skills for their development (Kılıç, 2015). Matsumoto-Royo, Ramírez-Montoya, and Conget (2021) highlighted the importance of providing opportunities for teacher candidates to let them develop lifelong learning tendencies in their process of practice-based education. The lifelong learning tendency also enables teachers to be an example for their students in enjoying learning and being aware of their learning needs. Teachers' lifelong learning tendencies are related to their constant desire to acquire new knowledge and skills. Teachers' desire helps them to follow the latest developments in their fields, discover new teaching strategies and materials, and provide the best education to their students. Teachers with lifelong learning competencies give more importance to their professional development, and this increases their professional satisfaction. This also increases teachers' motivation and positively affects their performance (Torun & Seçkin). Billett (2001) emphasized in his study that it is essential that teachers should receive training on lifelong learning and improve themselves in this regard. It can be thought that teachers who develop themselves in lifelong learning will be more likely to contribute professionally and personally to colleagues. Lifelong learning is of great importance in terms of the teaching profession because teachers must have lifelong learning abilities to achieve societal change and transformation, as well as to train pupils as individuals with the qualifications necessary by their age (Limon, Kaya & Dilekci, 2021).

Practice-based teacher education programs and continuing professional development opportunities can be effective strategies to support and develop teachers' lifelong learning tendencies (Matsumoto-Royo et al., 2021). In addition, being aware of the relationship between teachers' lifelong learning tendency and achievement motivation and supporting this relationship are considered important in increasing teachers' professional development and their students' success (Yılmaz & Kaygın, 2018). Considering that teachers are role models for lifelong learning (Gedik, 2019), the desire and motivation of teachers to continue this, which affects the manpower in society, should not be ignored. In order to increase teachers' lifelong learning tendencies, they need to keep themselves up to date, interact with colleagues and other professionals, attend conferences, workshops, and seminars, and regularly read and conduct research.

Determining the learning agility levels of teachers will play an essential role in developing lifelong learning tendencies. Teachers' Lifelong learning tendencies can be supported by increasing their learning agility levels. Teachers' learning agility levels determine how skillful they are in matters such as learning new knowledge and skills, thinking flexibly, solving problems, producing innovative solutions, adapting quickly, adapting to change, and openness to learning. These skills not only help teachers develop themselves and be open to learning but also help them be an example for their students. In order to increase learning agility levels, teachers need to discover different learning styles and learning strategies, learn to use new technologies and produce innovative solutions. In their study, Eksi, Özgenel, and Aksel Çiftçi (2021) found that teachers' lifelong learning tendencies predicted their innovativeness levels by 17%. This result shows that teachers' willingness to learn is closely related to their innovativeness. Therefore, it can be said that developing teachers' learning agility levels and lifelong learning tendencies is essential for both their development and students' success.

### 1.1. The Purpose and the Importance of the Research

When the literature is searched, it is seen that various studies were conducted in which teachers were selected as samples at both national and international levels. However, it is seen that there are more studies on lifelong learning (Al Asmari, 2016; Arcagök & Şahin, 2014; Ayaz, 2016; Çetinkaya, Gülaçtı, Çiftçi & Kağan, 2019; El Mawas & Muntean, 2018; Evin Gencil, 2013; Garzon Artacho, Martinez, Ortega Martin, Marín & Gomez Garcia, 2020; İleri, 2017; İzci & Koç, 2012; Kabal, 2019; Kalaitzidis, Kalaitzidou & Manolas, 2017; Kaya, 2022; Kılıç, 2015; Korkmaz, 2019; Kozikoğlu & Özcanlı, 2020; Limon, Kaya & Dilekci, 2022; Mackiewicz, 2002; Shin & Jun, 2019; Soruklu, 2022; Torun & Seçkin, 2020; Woonsun, 2014; Yalçın İncik, 2020), than on learning agility (Erdemli, 2022; Kaya, 2019; Kaya & Argon, 2021; Özdemir, 2020; Yazıcı & Özgenel, 2021; Yazıcı, 2020). On the other hand, no study has been found in the literature that deals with the two issues together. Determining the relationship between these two variables is of great importance in determining the strategies for the professional development of teachers and developing effective practices in the field of education. Teachers' learning agility reflects their ability to adapt to rapidly changing educational conditions. On the other hand, lifelong learning tendencies express teachers' willingness to acquire new knowledge and skills constantly. Therefore, understanding the relationship between teachers' learning agility and lifelong learning tendencies will provide a solid basis for educational organizations' efforts to support and empower teachers' continuous development. However, it can be stated that it is also essential to support possible future studies.

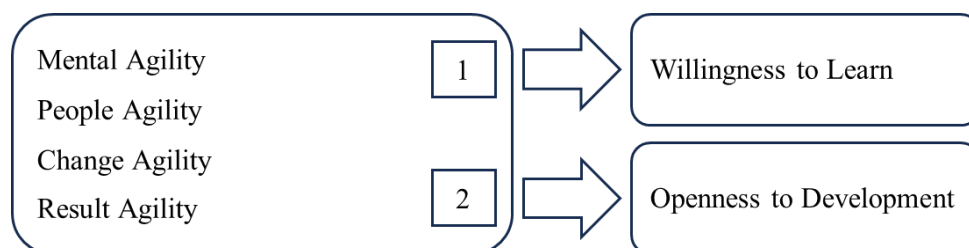
In this direction, this research study aims to determine the relationships between teachers' learning agility and lifelong learning tendencies. For this purpose, the following questions were tried to be answered.

- What are teachers' learning agility and lifelong learning tendencies?
- Is there a significant relationship between teachers' learning agility and lifelong learning tendencies?
- Can teachers' learning agility levels predict their lifelong learning tendencies at a significant level?

## 2. Method

### 2.1. Research Model

This research study is a cross-sectional study within the relational survey model. The study examined the effect of teachers' learning agility levels on their lifelong learning tendencies. In this context, two different multiple regression models were created, as seen in Figure 1.



**Figure 1.** *Research Model*

The first model includes the effects of learning agility dimensions on willingness to learn, and in the second model, their effects on openness to development.

## 2.2. Study Group

The study group of the research was determined by a convenient sampling method. According to Büyüköztürk, Çakmak, Akgün, Karadeniz, and Demirci (2008), the appropriate sampling method prevents the loss of labor and money. Researchers can speed up the research by applying to people in their perimeters or acquaintances selected using the convenient sampling method (Şahin, 2019). The research study group consisted of 230 teachers working in Beşiktaş district of Istanbul (three primary schools, three secondary schools, three high schools) in the 2022-2023 academic year. 56.5% (130) of the participants were female, and 43.5% (100) were male. It was determined that almost half of them, in other words, 45.7% (105), were between the ages of 31-40. However, 43% (122) of the participants were from private schools, and 57% (131) were from public schools. In addition, 44.3% (102) of the participants work at primary schools, 28.3% (65) at secondary schools, and 27.4% (63) at high schools.

## 2.3. Data Collection Tools

**Learning Agility Scale:** The scale developed by Gravett and Caldwell (2016) was adapted into Turkish by Kaya and Argon (2023). The scale is of a 4-factor structure consisting of 23 items. These factors are called “mental agility” (6 items), “people agility” (6 items), “change agility” (6 items), and “result agility” (5 items). Of these items, numbers 4, 6, and 14 were reverse-scored. The expressions “I am optimistic that I can learn new information.”, and “I enjoy researching new information.” can be given as examples of the expressions in the scale. The scale is in a 5-point Likert type, ranking from 1 (rarely) to 5 (always). The Cronbach's Alpha internal consistency coefficient of the scale is  $\alpha=0.92$ . In the current study, Cronbach's Alpha internal consistency coefficient is  $\alpha=0.77$ .

**Lifelong Learning Tendency Scale:** The scale developed by Gür Erdoğan and Aرسال (2016) measures teachers' and preservice teachers' lifelong learning tendencies. The scale has 17 items, 11 of which are in the "willingness to learn" dimension and six in the "openness to improvement" dimension. The expressions "I prefer to motivate myself in the learning process.", and "I look for ways to get educated to overcome my professional inadequacies." can be given as examples of the expressions in the scale. Evaluation options of the scale, which is in the 5-point Likert style, are “(1) Strongly disagree, (2) Disagree, (3) Undecided, (4) Agree, (5) Strongly agree”. The Cronbach's Alpha internal consistency coefficient of the scale is  $\alpha=0.86$ . In the current study, Cronbach's Alpha internal consistency coefficient is  $\alpha=0.88$ .

## 2.4. Data Collection Process

The data collection process continued online through “Google Forms” between May 5<sup>th</sup> - 15<sup>th</sup>, 2023. As a result of a 10-day data collection process, approximately 236 participants were reached.

## 2.5. Analysis of the Data

Data analysis was carried out using SPSS (24). First, the data set was examined in terms of missing data and missing data (236-6=230) was not included in the analysis. In order to check whether the research data met the assumption of univariate normal distribution, the kurtosis-skewness values were examined. As seen in Table 1, the results indicate that the data show a normal distribution. Arithmetic mean and standard deviation values were calculated for descriptive statistics, and Pearson correlation coefficients were calculated to reveal the interrelationships between variables. Multiple regression analysis was conducted to reveal the predictive relationships between the variables.

Before multiple regression analysis, autocorrelation, linearity, and multicollinearity assumptions were tested. The relationships between the dimensions of learning agility, which are independent variables, are between ( $r=0.417$ ;  $p=0.005$ ) and ( $r=0.236$ ;  $p=0.005$ ). In this context, all the relationships between independent variables are statistically significant and at the level of  $r<0.800$  (Field, 2005). For the autocorrelation problem, the Durbin-Watson statistics were examined. These values were calculated as 1.957 for the first model and 2.140 for the second model. Since the values were in the range of 1.5-2.5, it was seen that there was no autocorrelation problem between the independent variables. Data on the problem of multicollinearity between independent variables are given in Table 1.

**Table 1***Findings Regarding Regression Assumptions*

Dimension	Tolerance	VIF	CI	Kurtosis	Skewness
MA	0.908	1.101	18.861	0.48	0.27
PA	0.788	1.269	22.732	-0.72	-0.24
CA	0.824	1.214	20.954	-0.05	-0.17
RA	0.791	1.265	29.640	-0.15	-0.33

**Note:** MA=Mental Agility, PA=People Agility, CA=Change Agility, RA=Result Agility.

As seen in Table 1, tolerance values are in the range of 0.788-0.908, VIF values are in the range of 1.101-1.269, and condition indexes are in the range of 18.861-29.640. In this context, tolerance values  $>0.10$ , VIF values  $<10$ , and condition indices  $<30$  indicate that there is no multicollinearity problem between independent variables (Kline, 2018).

**2.6. Ethics Committee Permission**

In this study, all the rules specified to be followed within the "Higher Education Institutions Scientific Research and Publication Ethics Directive" scope were complied with. Ethics committee permission for the research was received by the decision of Haliç University Social and Humanities Research Ethics Committee dated May 5<sup>th</sup>, 2023, and numbered 03.

**3. Results**

In this section, descriptive results related to teachers' learning agility and life satisfaction tendencies obtained in the research, relationships between variables, and the results related to multiple regression analysis are given. Table 2 presents the descriptive results regarding learning agility and lifelong learning tendency variables.

**Table 2***Descriptive Results*

Scales	Sub-Dimensions	N	Mean	SD	Skewness	SE	Kurtosis	SE
Learning Agility	MA	230	3.54	0.43	0.27	0.16	0.48	0.32
	PA	230	4.10	0.52	-0.24	0.16	-0.72	0.32
	CA	230	3.24	0.45	-0.17	0.16	-0.05	0.32
	RA	230	3.91	0.46	-0.33	0.16	-0.15	0.32
Lifelong Learning Tendency	WL	230	4.19	0.45	-0.10	0.16	-0.03	0.32
	OD	230	4.33	0.43	0.02	0.16	-0.73	0.32

**Note:** MA=Mental Agility, PA=People Agility, CA=Change Agility, RA=Result Agility, WL=Willingness to Learn, OD=Openness to Development.



As seen in Table 2, the arithmetic mean of teachers' scores for learning agility was calculated as ( $\bar{x}$ =3.54) for the mental agility dimension, ( $\bar{x}$ =4.10) for the people agility dimension, ( $\bar{x}$ =3.91) for the result agility dimension which is at the "often" level, and ( $\bar{x}$ =3.24) for the change agility dimension which is at the "sometimes" level. The arithmetic mean of the scores for lifelong learning tendencies is at the level of "agree" for the willingness to learn dimensions ( $\bar{x}$ =4.19) and at the level of "strongly agree" for the openness to improvement dimension ( $\bar{x}$ =4.33).

Table 3 presents the relationships between teachers' learning agility and lifelong learning tendencies.

**Table 3**

*Relationships Between Variables*

Scale	WL	OD
MA	0.262**	0.111**
PA	0.406**	0.548**
CA	0.558**	0.353**
RA	0.142**	0.416**

\*\*p<0.001

When Table 3 is examined, it is seen that the willingness to learn dimension of the lifelong learning scale's relationships with both mental agility ( $r=0.262$ ; \*\*p<0.001) and result agility ( $r=0.142$ ; \*\*p<0.001) dimensions of the learning agility scale are at low levels. It is also seen that the willingness to learn dimension's relationship with people agility ( $r=0.406$ ; \*\*p<0.001) and change agility ( $r=0.558$ ; \*\*p<0.001) dimensions of the learning agility scales are at the medium levels. Additionally, it was discovered that the relationship between openness to development dimension of the lifelong learning scale and mental agility ( $r=0.111$ ; \*\*p<0.001) dimension of the learning agility scale is at a low level, and its relationships with the people agility ( $r=0.548$ ; \*\*p<0.001), change agility ( $r=0.353$ ; \*\*p<0.001), and result agility ( $r=0.416$ ; \*\*p<0.001) dimensions of the learning agility scale are at medium levels.

Table 4 presents multiple regression analysis results regarding predicting lifelong learning tendency dimensions from learning agility dimensions.

**Table 4**

*Findings of Multiple Regression Analysis*

Variables	Model 1					Model 2				
	WL <sup>a</sup>					OD <sup>b</sup>				
	B	SH	$\beta$	t	p	B	SH	$\beta$	T	p
Constant	2.175	0.316	-	6.881	0.000	1.271	0.309	-	4.119	0.000
MA	0.056	0.066	0.053	0.849	0.397	0.128	0.065	0.117	1.974	0.050
PA	0.300	0.062	0.323	4.828	0.000	0.276	0.061	0.289	4.538	0.000
CA	0.094	0.060	0.142	3.562	0.000	0.100	0.059	0.110	1.701	0.090
RA	0.150	0.072	0.106	2.077	0.039	0.250	0.070	0.231	3.549	0.000
	<sup>a</sup> R <sup>2</sup> =0.216; F=16.776; p=0.000					<sup>b</sup> R <sup>2</sup> =0.288; F=24.150; p=0.000				

Table 4 contains data from two different multiple-regression models. The first model tested whether mental agility, people agility, change agility, and result agility dimensions predict teachers' willingness to learn. The results ( $R^2=0.216$ ;  $F=16.776$ ;  $p=0.000$ ) show that the model is

significant, and learning agility dimensions explain approximately 22% of the variance in willingness to learn. However, according to the standardized regression coefficient, the relative importance order of the predictor variables on willingness to learn is people agility ( $\beta=0.323$ ;  $p=0.000$ ), change agility ( $\beta=0.142$ ;  $p=0.000$ ), result agility ( $\beta=0.106$ ;  $p=0.039$ ) and mental agility ( $\beta=0.053$ ;  $p=0.397$ ). According to the t-values regarding the significance of the regression coefficients, while the effect of people agility and change agility on willingness to learn is significant, the effects of result agility and mental agility are insignificant.

The second model tested whether mental agility, people agility, change agility, and result agility predict teachers' openness to improvement. The results ( $R^2=0.288$ ;  $F=24.150$ ;  $p=0.000$ ) show that the model is significant, and learning agility dimensions explain approximately 29% of the variance in openness to development. However, according to the standardized regression coefficient, the relative importance order of the predictor variables on openness to improvement is people agility ( $\beta=0.289$ ;  $p=0.000$ ), result agility ( $\beta=0.231$ ;  $p=0.000$ ), mental agility ( $\beta=0.117$ ;  $p=0.050$ ), and change agility ( $\beta=0.110$ ;  $p=0.090$ ). When the t values related to the significance of the regression coefficients are examined, it is seen that the effects of people agility and result agility on openness to development are significant, while the effects of mental agility and change agility are not significant.

#### 4. Discussions and Conclusions

At the end of the research, it was determined that the learning agility of the teachers was at a high level. When the literature is examined, it is seen that some research results support the results of this research (Canaslan & Güçlü, 2020; Choi, Ha, Kim & Kang, 2020; Howard, 2017; Kaya & Argon, 2023; Santoso & Yuzarion, 2021). When teachers' views on learning agility were evaluated in sub-dimensions, it was concluded that teachers' people agility levels were higher, followed by levels of result agility, mental agility, and change agility in order. As can be seen in the specified order above, it is noticed that teachers mainly express positive opinions about people agility. According to the study conducted by Howard (2017) with preservice teachers, the participants' people agility and result agility affect their classroom performance much more than mental agility and change agility. It is expected that teachers' human relations develop in time since they carry out their professions in schools with open social systems. Additionally, the evaluation of the outputs presented to the society, in other words, the fact that they are in the network of relations related to raising human, is related to their high result agility. Thus, Zümrüt (2020) also concluded that collaborative learning environments can increase students' learning agility and performance. Collaborative environments can be seen as environments that involve group work in which human relations are intensely experienced.

In the study, it was observed that teachers' lifelong learning tendencies were at a high level. Teachers' views on lifelong learning tendencies are also relatively high regarding willingness to learn and openness to development. There are research results in the literature showing that teachers' lifelong learning tendencies are sufficient and at a high level (Ayaz, 2016; Gökyer, 2019; Kabal, 2019; Kılıç, 2015; Sevinç & Çelebi, 2020; Tanatar & Alpaydın, 2019; Yalçın İncik, 2020; Yılmaz, 2016). Çınar (2022) also concluded in his research that teachers' lifelong learning tendencies are at a high level in the willingness to learn and openness to development sub-dimensions. In his research, Yalçın İncik (2020) concluded that teachers' lifelong learning tendencies and the 21<sup>st</sup> century teacher skills levels are high. On the other hand, in Türkmenoğlu and Demirel's (2019) study, teachers stated that they saw themselves at a moderate level in terms of lifelong learning skills. They also stated that their most significant deficiencies were in digital skills.



At the end of the research, it was determined that there is a low and medium level, positive, and significant relationship between the learning agility of teachers and the sub-dimensions of lifelong learning tendencies variables. When the research study conducted by Erdemli (2022) in the literature is examined, it is seen that there was a positive and high-level relationship between the dimensions of school administrators' learning agility and managerial creativity skills. According to the results of this research, as school administrators' learning agility levels increase, they exhibit more managerial creativity skills. Managerial creativity features such as being extroverted, focused, creative, resilient, and coping with uncertainty and complexity by taking advantage of opportunities (Flaum & Winkler, 2015) show parallelism with lifelong learning features. Therefore, the results of their study support the results of this study. Öztürk's (2021) study showed that learning agility is highly correlated with job satisfaction and performance. It can be thought that the increase in the job performance of people who have high learning agility is directly proportional to their lifelong learning tendency. The performance of individuals who are willing to learn throughout life and are open to development will increase in their organizations. In his study, Kaya (2019) examined the relationships between learning agility and teachers' attitudes to stay at school and teacher quality variables, and he found that there is a positive, moderate, and low-level relationship between these variables. Considering the relationship between teacher quality and lifelong learning, it can be said that his results support the results of this research. Yim and Lee (2021) determined that learning agility positively correlates with achievement motivation and self-leadership. Additionally, Burke, Roloff, and Mitchinson (2016) stated in their studies that learning agility improves with the combination of motivation and learning from experience. Moreover, considering that success motivation is related to individuals' willingness to learn and openness to development, hence lifelong learning, these results also support the results of this study's research. Laxson (2018), on the other hand, states that learning agility is related to individual characteristics such as openness to change and innovation. It can be said that these results indirectly support the relationship between learning agility and lifelong learning.

At the end of the research, when the relationships between teachers' learning agility levels and lifelong learning tendencies are examined in the context of dimensions, it is seen that there are various meaningful relationships. There is a low-level relationship between mental agility, results agility, and willingness to learn dimension. It was determined that there is a low-level relationship between mental agility and results agility and willingness to learn dimensions, and a moderate, positive, significant relationship between people agility and change agility and the willingness to learn dimensions. It was seen that there is a medium-level relationship between openness to development, which is another dimension, and people agility, change agility, and results agility, and also a low-level positive and significant relationship with mental agility. Change agility, expressed as being curious to experience new and challenging situations and thus further developing skills (Yockey, 2015), will directly affect the willingness to learn. Yazıcı (2020) concluded in his/her research that a positive, moderate correlation exists between teachers' performance and readiness for change and learning agility. Since readiness for change is related to individuals' high levels of change agility, it is expected that this situation also affects the levels of willingness to learn and openness to improvement. According to Lombardo and Eichinger (2000), individuals with high change agility and people agility are both curious and willing to participate in skill development activities. The results reached at the end of their research study support the relationship between change agility and people agility and willingness to learn. Bedford (2011) emphasized that learning agility has a highly positive relationship with the potential for promotion, advancement, and performance in the work environment. With this expression, it is stated that individuals with high learning agility tend to exhibit high performance. This happens as a result of increased levels of willingness to learn and openness to improvement. Such individuals can adopt new experiences quickly and effectively and are more skilled in applying their acquired knowledge (Schram & Meijning, 2018). At the same time, these

individuals can achieve results, motivate others, and develop self-confidence even in challenging or innovative circumstances. With these abilities, they try to improve the performance of others by increasing team motivation. They focus on goals and know that achieving them or obtaining what they want depends on their abilities. They are not discouraged by failures; on the contrary, they do not give up and look for new options and alternative ways (Kaya and Argon, 2021). This shows that their openness to development and willingness to learn work effectively. In other words, high learning agility plays a critical role in increasing the performance of individuals at work and acting successfully under different conditions. Therefore, strategies to increase learning agility stand out as an essential tool to support these positive characteristics of individuals and promote business success.

The research's third and last sub-problem is that teachers' learning agility levels significantly predict their lifelong learning tendencies. At the end of the research, it was concluded that people agility and change agility, which are learning agility dimensions, significantly predicted willingness to learn but did not significantly predict result agility and mental agility. In other words, if teachers increase their people agility and change agility levels, there will be an increase in their willingness to learn. It has already been emphasized that factors such as openness to innovation and change, among personal characteristics, are closely related to learning agility (Laxson, 2018). This situation shows that improving teachers' collaborative skills and adopting a more open approach to change can increase their willingness to learn. Therefore, it can be concluded that teachers' focusing on human relations and change agility skills while continuing their professional development can support their willingness to learn, which is one of the lifelong learning tendencies. In this context, Mitchinson and Morris (2014) stated that training and development studies at individual, team, and institutional levels are very important for developing learning agility skills. The strategies presented in this study are guidelines for increasing learning agility. Among the suggested strategies, there are methods such as diversifying experiences, acquiring the habit of feedback, developing critical thinking skills, adopting an open mindset against change, and seeking continuous learning opportunities (Swisher, Hallenbeck, Orr, Eichinger, Lombardo & Capretta, 2013). The application of these strategies will help teachers increase their learning agility. With the application of these effective strategies, teachers' learning agility levels can be increased and this can strengthen their willingness to learn, which is one of the lifelong learning dimensions. These crucial developments, together with the continuous encouragement of an open approach to innovation and improvement in education, can also improve the quality of education by allowing teachers to continue their professional development.

The results obtained in the second model showed that people agility and result agility, which are learning agility dimensions, significantly predict openness to development. However, it did not significantly predict change agility and mental agility. This situation shows that as teachers' people agility and result agility skills increase, their openness to development also increases. In other words, improving teachers' cooperation and focusing on results skills can increase their tendency to be open to development. This can ensure that teachers embrace continuous improvement and are willing to acquire new knowledge and skills. A study by Choi et al. (2020) revealed that learning agility, professional expertise, and positive psychological capital positively affect teachers' job satisfaction. It was reported that developing learning agility skills also positively impacts career decisions (Lee & Song, 2022). Considering that professional expertise and career development are related to openness to development, the results of this research support the current research. Ulrich and Yeung's (2019) study revealed a significant relationship between learning agility and learning orientation, problem-solving, creativity, critical thinking, innovation, and communication skills. In this context, these skills can be considered essential factors explaining teachers' openness to improvement. However, the change agility and mental agility dimensions do not predict openness to development. This shows that teachers' attitudes

towards change and mental agility are less effective in determining their openness to improvement.

People agility is the common factor that significantly affects willingness to learn and openness to improvement. On the other hand, mental agility is the common factor that does not significantly affect both willingness to learn and openness to improvement. In summary, while people agility has a significant effect on the increase of teachers' lifelong learning tendencies, their mental agility does not have a significant effect. The reason for this may be that teachers may take into account the opinions and thoughts of others and benefit from different perspectives in solving problems. In addition, it can be concluded that teachers have high self-awareness and strong communication skills, are tolerant, empathetic, and open-minded, and help other people succeed (Eichinger & Lombardo, 2004). This can be characterized as situations that positively affect their lifelong learning tendencies.

This research has some limitations. The first limitation of the study is that the participants were selected from among the teachers working only in a single district in Istanbul. The second limitation of the research is that the teachers working in pre-school were not included in the research, and only teachers working at other levels were included. The third limitation of the study is that teachers' opinions were limited to the items in the measurement tools. Online data collection method was preferred rather than face-to-face data collection. This is the fourth limitation of the study. Some suggestions for practitioners and researchers have been developed and listed in line with the findings obtained with these limitations.

In future studies, other variables (teacher quality, teacher's attitude to stay in school, motivation, perceived supportive climate, school effectiveness, leadership, etc.) can be examined as predictors of teachers' lifelong learning tendencies. Additionally, the relationship between teachers' learning agility levels and lifelong learning tendencies can be examined with different models by using mediator role variables. Different districts of the same province can participate in the study, or it can be extended by including different provinces of Turkey. Furthermore, teachers may express their views on both issues in more detail with qualitative studies. Finally, new research can be designed to identify and improve the problems they experience.

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### **Ethics Committee Permission**

In this study, all the rules specified to be followed within the scope of the "Higher Education Institutions Scientific Research and Publication Ethics Directive" were complied with. Ethics committee permission for the research was received by the decision of Haliç University Social and Humanities Research Ethics Committee dated May 5th, 2023, and numbered 03.