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A needs analysis study on a learning to learn Awareness Training Program for Teachers

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Abstract

This study investigates teachers' needs related to the concept of learning to learn, with the aim of informing the development of a targeted awareness training program. Despite the growing emphasis on metacognitive strategies in education, many teachers still lack sufficient knowledge, skills, and awareness to effectively integrate learning to learn into their instructional practices. This gap highlights a critical area for professional development, especially as the ability to learn to learn is closely associated with lifelong learning and a proactive approach to continuous professional growth. The study adopts a qualitative research design to explore this issue in depth. Data were collected through semi-structured interviews with ten teachers across diverse subject areas, using an interview form developed by the researchers. The data were analyzed through descriptive analysis with the support of a qualitative data analysis program. Findings indicate a significant need for increased awareness and competence among teachers regarding metacognitive learning strategies. The implications underscore the importance of incorporating structured awareness programs into teacher training initiatives to foster more reflective, self-regulated, and adaptive educators.

Keywords: Awareness; learning strategies; metacognition; qualitative research; teacher development.

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1. INTRODUCTION

The 21st century is a time of unprecedented growth and rapid change in the knowledge economy. Individuals and societies need to constantly learn new things, apply their knowledge in new contexts, create new knowledge where knowledge and ways of thinking are insufficient, and make intelligent judgments about what is important and what is not. While learning content is always important, learning how to learn is equally vital (James and McCormick, 2009).

Given that it is almost impossible to keep up with the accumulation of knowledge today, the important point is no longer to transfer knowledge directly to the individual, but to learn how and in what ways to access the information they need. Therefore, the important point is individuals' intrinsic desire to learn, their ability to learn from other people, and their ability to value different types of knowledge (Hoskins & Crick, 2008). As this idea becomes more widespread, the key to success is to have the ability to learn. Learning to learn, defined by the European Commission as one of the key competencies for the 21st century, encompasses the individual's ability to access, evaluate and organize information and adapt to new situations. This competence is critical for both personal and professional development. At the same time, in PISA (Program for International Student Assessment) (OECD, 2018) reports, learning to learn is associated with students' ability to develop skills such as problem solving, critical thinking, and lifelong learning. According to the definition by the European Union, learning to learn is the ability to sustain a continuous effort to learn, to continue learning with determination, and to organize one's learning by organizing information and time effectively, both individually and in groups. This ability includes awareness of one's learning process and needs, the ability to identify available opportunities, and the ability to overcome barriers to learning. It also refers to the ability to acquire, progress, and construct new knowledge and skills and to benefit from the help of others (Education Council, 2006, cited in Hoskins, 2008).

Hager and Gonczi (1996) emphasize that learning to learn is fundamental for lifelong learning skills. Learning to learn is the ability to recognize, manage, and improve one's learning processes. This ability helps the individual to choose effective methods and strategies to achieve learning goals. Flavell (1979) associates the concept of learning to learn with "metacognition" and defines it as the ability to control and manage one's learning processes. In this context, as individuals' learning to learn skills improve, their motivation and strategic approaches to learning processes are strengthened (Zimmerman, 2002). Especially in educational settings, learning to learn skill plays a critical role in increasing students' academic achievement. Individuals who know how to learn, i.e., learners, are aware of how and why information is acquired and used. This ability enables learners to develop awareness about the learning process, their needs, available resources, and methods of coping with difficulties encountered (Pettenati & Cigognini, 2009).

Being aware of one's learning goals and developing strategies appropriate to these goals play an important role in the learning process (Pi et al., 2024). In other words, the individual's ability to adapt the learning processes according to their own needs and awareness of their developmental needs is essential in adult education theory (Knowles, 1990). Locke and Latham (1990) also emphasize the impact of goal setting on individual motivation and performance. Individuals who have developed the ability to learn how to learn are aware of their learning potential, which information they can access from which sources, and how they can use this information effectively. These individuals can control their learning, cope with the problems they face, question and analyze situations without getting lost in the intensity of the information they learn. Moreover, knowing the techniques of studying and learning makes them think that what they have learned is not enough, and makes them strive to learn more. Recent research confirms that metacognitive awareness, coupled with 21st-century skills, strongly predicts readiness and success in online and blended learning environments (Karataş & Arpaci, 2021). This aligns with growing evidence that metacognition is central to self-regulated learning, decision-making, and lifelong adaptability in complex, unpredictable contexts (Winne & Azevedo, 2022). Furthermore, preschool-to-higher-education studies link learners' metacognitive and self-regulatory competencies to their academic and professional identity formation (Çengelci & Eğmir, 2022).

Teachers need to teach the essence of subjects and help students learn ideas and practices that are relevant to the learning process. Teachers must make learning open to students and encourage their autonomy in learning. For many teachers, this requires them to learn new knowledge (about learning), develop new skills, and re-evaluate their role (Wang et al., 2024). High-quality professional development that emphasizes metacognitive training and reflection (reflective practice) helps teachers adopt these meta-learning roles. Schunk and Zimmerman (1998) stated that learning to learn enables individuals to manage their learning processes and to realize their professional development more effectively. For example, a teacher with learning to learn skills can recognize different learning needs in the classroom and develop appropriate methods for these needs. Workplace-based metacognitive training in PD has shown sustained gains in teachers' instructional adaptability and student achievement (Phillips et al., 2022). Studies report that PD interventions that embed metacognitive reflection and goal-setting lead to stronger teacher autonomy and instructional innovation (Darling-Hammond et al., 2021).

1.1. Purpose of study

The subject of this study is to identify teachers' needs regarding the phenomenon of learning to learn. The concepts of "felt need" and "realized need" in education are often used to describe shortcomings and aspects that need to be improved about students, teachers, or the educational system. These concepts form an important basis for making learning processes more efficient and increasing academic achievement. In education, this refers to the moment when students or teachers realize that they lack a certain skill or knowledge. Individuals' realization of their educational needs stems from personal experiences, environmental factors, and individual expectations. It is associated with students' difficulties in a particular subject and teachers' realization of these deficiencies when analyzing their students' learning processes (Schneider, 2008). The interplay between felt and realized needs is crucial for creating change and improvement in education. While the felt needs of a teacher or student provide basic data for evaluating the effectiveness of a teaching method, the needs recognized by educational professionals and administrators require more systematic and comprehensive solutions. The main purpose of this study is to determine the needs of teachers regarding the phenomenon of learning to learn. In line with this purpose, answers to the following questions were sought.

1. What are teachers' views on the phenomenon of learning to learn?
    - What are their views on learning processes?
    - What are teachers' views on sensory factors in the process of learning to learn?
    - What are the views of teachers on learning environments and external factors in the process of learning to learn?
    - What are the views of teachers on lifelong learning and professional development in the process of learning to learn?
    - What are the views of teachers on thinking skills in the process of learning to learn?
2. What are teachers' suggestions for a professional development program on learning to learn?

2. METHOD AND MATERIALS

2.1. Research model

Qualitative research was preferred in this study, which aims to determine teachers' views on how they construct, make sense of, and interpret their knowledge about learning to learn. Qualitative research is a research method that provides information about the sample to be preferred in studies, combines data collection and recording processes with multiple data sources, offers inductive and deductive approaches, and provides flexibility and reflexivity (Creswell and Creswell, 2017).

2.2. Participants

The sample of the study consisted of 10 teachers working in a city in the inner region of Turkey under the Ministry of National Education. The fields of the teachers are English, Turkish, Music, Classroom, Science, and Mathematics. Since it was aimed to obtain the meaning structures of teachers from different fields regarding the phenomenon under study, maximum diversity sampling was adopted. Patton (2002) defined this sampling method as "trying to understand the effects of a phenomenon on different contexts, situations, and individuals. In this context, teachers from different branches were selected, and the research topic was addressed from a broad perspective (Patton, 2002).

2.3. Data collection tool

In the study, the "learning to learn interview form", which was developed by the researchers and whose validity and reliability studies were carried out, was used to determine teachers' views on learning to learn and thus their needs. In the creation of the interview form, a literature review was conducted, and the first version of the form was examined by 2 experts working in the field of curriculum development. After the feedback was received, 2 experts who are Turkish language teachers examined the form for clarity and comprehensibility. After the feedback was received, the form was finalized.

2.4. Data collection procedure

The interviews were conducted face-to-face in areas of the schools deemed appropriate by the school principal. The first researcher conducted the interviews. Each interview lasted approximately 30 minutes. Permission was obtained from the participants for audio recording during the interview.

2.5. Ethical principles

Ethical rules were followed at all stages of the study, and necessary permissions were obtained. Participants were informed about the purpose of the study, and voluntary participation was ensured. In addition, the confidentiality of personal data was protected and used only for research purposes

2.6. Data analysis

The MAXQDA qualitative data analysis program was used to analyze the data obtained in the study. The use of computer programs in the data analysis phase increases the reliability of the study and facilitates the analysis of the data (Silverman, 2010). According to the content analysis, the data were read more than once by the researchers before coding. After the readings were completed, a coding scheme was developed. Codes are symbols used to classify or group groups of words and concepts related to research questions (Robson, 2002). The reliability formula suggested by Miles and Huberman (1994) was used for the reliability calculation of the research, and the reliability of the research was calculated as 95%. Quotations were made from the teacher's opinions regarding the codes that emerged. The analyzed data were presented and interpreted with the visuals obtained through the program.

3. RESULTS

3.1. Teachers' views on the phenomenon of learning to learn

3.1.1. Findings regarding teachers' views on learning processes

Table 1

Opinions on learning processes

Category	Subcategory	Participants	f
Learning Process	Strategy Awareness and use in	K2, K3, K4, K6, K7, K9	6

	learning		
	Usefulness in learning	K1, K2, K3, K4, K6, K8, K9, K10	8
	Continuity in learning	K1, K3, K5, K6, K8, K9, K10	7
	Transfer in learning	K1, K3, K6, K7, K8, K9	7
	The concept of time in learning	K1, K2, K4, K6, K7, K8, K10	6

As seen in Table 1, there are five sub-categories of learning processes: Learning autonomy, strategy awareness in learning, usefulness in learning, continuity in learning, transfer in learning, and time in learning. Direct quotations pointing to these categories are presented below.

> *"... I have a personal notebook. I mean, I take a note of something I have just learned, and then I have the opportunity to compare it with previous similar information. Sometimes I also think that this causes a waste of time. At this point, I don't know what can be done more effectively." and expressed his lack of knowledge about effective strategies in learning processes. P6; "I also try to use what I have learned in new learning. For example, I loved roller skating when I was little. When I tried ice skating, I realized that I could skate much more comfortably... so I can save time. But I don't know how to consciously transfer this to my other learning, I don't have much knowledge there*." (P4)

The participant stated that she did not have enough knowledge about the transfer of newly learned knowledge, skills, or attitudes to new learning in the learning process.

3.1.2. Findings regarding teachers' views on sensory factors in the learning to learn process

Table 2

Findings regarding opinions on sensory factors

Category	Subcategory	Participants	f
Affective Factors in Learning Processes	Curiosity/Interest	K1, K2, K4, K5, K6, K7, K8, K9, K10	9
	Enthusiasm and excitement for learning	K1, K2, K3, K5, K6, K10	6
	The mission of motivation in learning	K1, K2, K3, K5, K6, K8, K9, K10	8

In the findings obtained from the teachers, three sub-categories belong to the category of affective factors related to learning to learn: Curiosity/interest, desire and excitement for learning, and the mission of motivation in learning. P7: "*My purpose in learning is to ensure my personal development and to satisfy my interest or curiosity. Most of the time, I don't think I have a high level of awareness about defining my interests or curiosity. I don't have much of an idea about what I should do to discover myself better."* P7 stated that he did not have precise knowledge about the subjects of curiosity and interest in learning. P8; "Motivation is important, but how important it is...I have to think about it. I don't know if it will do anything on its own," and expressed that the

concept of motivation in learning is not sufficient.

3.1.3. Findings regarding teachers' opinions on learning environments and external factors in the learning to learn process

Table 3

Findings regarding opinions on learning environments and external factors

Category	Subcategory	Participants	f
Learning Environments and External Factors	Teacher-student relationship dynamics	K1, K2, K3, K4, K5, K6, K7, K8, K9, K10	10
	Impact of the environment on learning	K1, K3, K4, K5, K6, K8, K9, K10	8
	Awareness and use of technology in learning	K1, K3, K6, K7, K10	5

In the data obtained from teachers, there are three sub-categories related to learning environments and external factors related to learning to learn: Teacher and student relationship dynamics, the impact of the environment on learning, and technology awareness and use in learning. P1: "*Our biggest deficiency is that as teachers, we cannot use the environment effectively. In which way? How can we make the environment where students are located useful, that is, how can we use it for them? We don't think about this. Because, as we said, human beings are one with their environment, they are shaped by their environment, and they are as much as their environment is. I think that the environment has a great effect on learning, and emphasized that teachers can ignore the effect of the environment on learning, and that this is a deficiency*."

3.1.4. Findings related to teachers' views on lifelong learning and professional development in the learning to learn process

Table 4

Findings regarding views on lifelong learning and professional development

Category	Subcategory	Participants	f
Lifelong Learning and Professional Development	Receiving feedback	K1, K2, K3, K4, K5, K6, K7, K10	9
	Networking	K1, K2, K3, K4, K6, K9, K10	7

There are two sub-categories under the heading of findings regarding teachers' views on lifelong learning and professional development in the learning to learn process: receiving feedback and networking. Regarding the importance of feedback in learning, P5: "There should be environments where there is feedback and active interaction on both sides. But I think we are not equipped enough at the point of giving feedback." P1; *"It is very important for teachers who have the same problem to come together and share the problem, to discuss about it, to give their ideas within the framework of a collaborative approach, for everyone to criticize, to share their experiences, to make a common decision from the experiences, that is, to interact with other teachers. I think this is our biggest deficiency as an*

education community."

3.1.5. Findings related to teachers' opinions on thinking skills in the process of learning to learn

Table 5

Findings regarding teachers' opinions on thinking skills

Category	Subcategory	Participants	f
Thinking Skills in Learning	Reflection	K1, K2, K3, K4, K5, K6, K7, K9, K10	9
	Awareness of learning to learn	K1, K2, K3, K5, K6, K9	5
	Awareness of purpose	K1, K2, K3, K5, K7, K8, K9, K10	8
	Awareness of developmental needs	K2, K2, K4, K6, K7, K8, K9, K10	8
	Metacognitive regulation	K2, K3, K4, K6, K8, K9, K10	7
	Self-awareness	K2, K3, K4, K5, K8, K9, K10	7

There are seven sub-categories under the heading of findings regarding teachers' views on thinking skills in the process of learning to learn: reflection, awareness of learning to learn, awareness of purpose, awareness of developmental needs, metacognitive regulation, self-awareness, and prejudice and misconceptions in learning. P6 mentions the importance of reflection, which means evaluating one's learning, with the statement "When can I work best in directing my thinking processes, or when learning takes place, or how can I make it more permanent? I am confused about this, unfortunately." P8; "If I do not have a purpose, I cannot learn, I do not learn. This is the biggest obstacle that people, especially the teacher community, experience. I don't think some of us have a purpose" and stated that awareness of purpose is important in learning, but with a critical perspective, lack of purpose for teachers is the biggest obstacle to learning. P2: "I try to look at the situation from the outside. If I can't, I know that I need to ask someone for help. The most difficult thing for me is to consult. I mean, although I know that someone can help me to look at an event from a bird's eye view, I do not do this." and stated that it is not sufficient to meet developmental needs.

3.2. Teachers' Suggestions for a Professional Development Activity on Learning to Learn

When the participants were asked at the end of the interview about their thoughts on a professional development activity to be organized to raise awareness in learning to learn, they stated their thoughts on this issue:

> *"...different people's perspectives on the issue can open new horizons for me. Or my evaluation can open new horizons for them. I learn something from them and they teach me something. Therefore, the theme of exchanging information or influencing teachers from different schools should be included in the programs."* (P1)

> *"The training should be sharing-oriented. I think such issues can be solved by sharing both the difficulties encountered and the solutions produced*." (P3)

> *"For example, when I am learning something new, I don't know how I can achieve it in the shortest way among all my responsibilities. I think I need help in this regard."* (P5)

"Training should be voluntary, because not all of my colleagues are open to new things, despite the obligation to be open to new things. This is sad. But many want to." (P6)

"Learning strategies can be shared with teachers more concretely. Beyond taking notes with pen and paper, questions such as how we can use artificial intelligence or what its importance is can be your starting point." (P10)

4. DISCUSSION

The findings of the study determined teachers' views on learning to learn and revealed that they need a training program that aims to provide a perspective transformation by increasing their awareness in this field. Similar studies in the literature emphasize that learning to learn is an indispensable skill for individuals and overlap with the findings of this study (Knowles, 1990; Brookfield, 2017; Schunk & Zimmerman, 1998; Perrenoud, 1999; Zeidner et al., 2000; Jarvis, 2012; Hautamäki et al., 2002; Biggs & Tang 2011). However, although there is a widespread acceptance that learning to learn is an important goal in education, there is no consensus on how this goal should be implemented. This is consistent with the studies conducted by Waeytens et al. (2002). It has been emphasized in many studies that teachers' professional development training plays a critical role in adapting to the requirements of the age (Torff & Session, 2008; Muzaffar & Malik, 2012). In particular, the importance of individuals and, therefore, teachers' mastery of learning processes is supported by many studies (Schön, 2017; Flavell, 1979; Brown, 1987; Perkins & Salomon, 1992; Nelson, 1990; Roncancio & McBride, 2017; Holes, 2013; Benson, 2001; Freire, 1970). However, these research findings show that teachers' awareness of the importance of affective factors in the learning to learn process is low and that affective factors play a critical role in the learning process (Knowles, 1990; Schunk, 2012; Pintrich, 2003; Deci & Ryan, 2013; Dweck, 2013; Atkinson, 1957; Csikszentmihalyi & Csikzentmihaly 1990; Hidi & Renninger, 2006; Berlyne, 1960). In this context, it is clear that teachers need in-service training.

The impact of external and environmental factors on the learning process in the learning environment has been emphasized by many studies. However, research findings show that teachers are inadequate in this regard. In today's society, individuals should be aware of the importance of lifelong learning and have a positive attitude towards professional development to adapt to the requirements of the age and to realize themselves (Schön, 2017; Perkins & Salomon, 1992; Jarvis, 2012; Perrenaud, 1999). However, the interviews conducted within the scope of this study revealed that teachers' awareness in this dimension was low. On the other hand, it is widely accepted in the literature that thinking skills play a critical role in the learning process (Roncancio & McBride, 2017; Brown, 1987; Locke & Latham, 1990; Flavell, 1979; Dweck, 2013; Zimmerman, 2002; Schön, 2017). However, research findings show that teachers' awareness of these skills is not at a sufficient level.

Finally, when teachers were asked about their views on a professional development program to be organized on learning to learn, it was found that teachers had positive attitudes towards learning, but they did not have sufficient awareness of how to manage this process. This study is expected to provide important data for the design of training programs to increase teachers' awareness of learning to learn in their professional development processes and to provide guidance for future programs.

5. CONCLUSION

The results of this study demonstrate that while teachers generally hold a positive attitude toward learning and acknowledge its importance for both personal and professional development, their awareness and competence in managing the process of learning to learn remain limited. Across various dimensions, such as strategic learning behaviors, metacognitive regulation, emotional factors, and the influence of learning environments, teachers expressed uncertainty, noted gaps in their knowledge, or admitted a lack of structured approaches to effectively guide their learning processes.

This gap in practical knowledge points to an urgent need for professional development programs that do more than simply raise theoretical awareness. Such programs must also provide concrete tools, reflective practices, and experiential learning opportunities to help teachers better understand and control how they learn. The findings

suggest that teachers would particularly benefit from support in areas like strategy use, emotional self-regulation, reflection, and digital literacy, skills which are essential for lifelong learning and professional growth in a rapidly changing educational landscape.

Additionally, while teachers conveyed a clear willingness to improve, they emphasized the importance of collaborative, contextually relevant, and voluntary training environments. Participants expressed a preference for peer-sharing platforms where they could exchange insights, address real-world classroom challenges, and explore new tools such as artificial intelligence. This feedback underscores the necessity of designing professional development initiatives that are dynamic, teacher-centered, and grounded in practical reality. By enabling teachers to engage with diverse perspectives and critically reflect on their learning identities, such programs can foster deeper professional engagement and adaptability.

The study also highlights a broader systemic issue: although the concept of learning to learn is widely recognized as crucial in educational theory, it is not yet fully embedded in practice. This reflects a broader lack of coherence and implementation in current professional development frameworks. Without deliberate and structured efforts to integrate learning-to-learn principles into teacher training, educators are likely to continue facing challenges in adapting to evolving demands and advancing their professional capacities.

In conclusion, the findings point toward the need for a more holistic approach to teacher development, one that cultivates metacognitive awareness, emotional intelligence, and reflective thinking, while also reinforcing the value of feedback, collaboration, and self-directed learning. This study is expected to provide meaningful insights for the design of future professional development programs, ensuring that teachers are not only equipped to educate others but also empowered to evolve continually as learners themselves.

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