The Mediating Role of Metacognitive Awareness in the Relationship Between Pragmatic Awareness and Communication Skill

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ABSTRACT

This study examines the relationship between pragmatic awareness and communication skills by exploring the mediating role of metacognitive awareness in this interaction. The research was conducted with pre-service teachers using a quantitative method based on a correlational survey model. The sample consisted of 235 pre-service teachers studying at the faculty of education of a state university in Turkey. A validity and reliability tested scales were used to collect data. These are Metacognitive Awareness Scale, Communication Skills Scale and Pragmatic Awareness Scale. In the study, the normality of the variables' scores was examined, and after confirming that the data followed a normal distribution, the analyses were conducted. The relationships between the variables were analyzed using Pearson's Product-Moment Correlation Analysis, revealing significant correlations. A mediation model was then established for the analysis. The data collected was analyzed to evaluate the connection between pragmatic awareness and communication skills, alongside the impact of metacognitive awareness on this relationship. Findings reveal that metacognitive awareness plays a significant mediating role between pragmatic awareness and communication skills. This study highlights that enhancing metacognitive awareness during the educational processes of pre-service teachers can significantly improve their communication skills.

Keywords: Pragmatic awareness, metacognitive awareness, communication skills, pre-service teachers, mediation model.

Introduction

In education, pragmatic and metacognitive awareness are essential for individuals to manage and enhance their learning processes more effectively. Successful interaction in educational settings requires pre-service teachers to develop not only linguistic skills but also pragmatic awareness, metacognitive awareness, and communication skills through an integrated approach. Pragmatic awareness facilitates understanding the social functions of language, while metacognition enables individuals to manage their cognitive processes strategically, thereby leveraging this awareness effectively. Communication skills, resulting from the combination of pragmatics and metacognition, strengthen the classroom interactions of preservice teachers.

Pragmatic awareness equips individuals to understand and appropriately apply the social and cultural rules of language. Context-sensitive language usage prevents misunderstandings and supports interpersonal communication (Kasper & Rose, 2002; Thomas, 1983). Blum-Kulka et al. (1989) describe pragmatic awareness as linguistic behaviors shaped by cultural sensitivity. For pre-service teachers, this skill fosters effective communication with students from diverse cultural backgrounds and promotes cultural sensitivity in educational environments (Brown & Levinson, 1987; Ishihara & Cohen, 2010).

Pragmatic awareness enhances not only linguistic abilities but also the social sensitivity of preservice teachers, contributing to intercultural communication. This sensitivity helps teachers foster social adaptation skills in students, enriching language education as a multidimensional experience (Deardorff, 2006). Thus, pragmatic awareness is one of the fundamental competencies supporting pre-service teachers' pedagogical interactions.

Effective use of this skill by preservice teachers is directly linked to metacognitive awareness. Flavell's (1979) metacognition theory suggests that being aware of one's

cognitive processes is crucial for organizing learning and communication strategies. Schraw and Moshman (1995) argue that metacognitive awareness aids individuals in developing strategic behaviors in linguistic and communicative contexts. Wenden (1998) emphasizes metacognition as a core skill for self-evaluating performance in language learning. By developing metacognitive awareness, pre-service teachers can better direct their own learning processes and provide strategies to support students' language acquisition (Paris & Winograd, 1990; Pintrich, 2002).

Considering the contributions of metacognitive awareness and pragmatic awareness to communication skills is essential. Individuals with high metacognitive awareness levels can monitor their thought processes and develop effective communication strategies (Zimmerman, 2002). Effective communication in native language education directly impacts students' learning experiences. The integration of metacognition with strategic language use allows individuals to adapt their linguistic behaviors to context (Doughty & Long, 2003). This capability transforms language and communication skills from mere technical competence to a broader consideration of social and cultural dimensions. Pintrich (2002) and Zimmerman (2000) note that metacognitive awareness supports strategic decision-making in communication processes, while Hattie and Timperley (2007) highlight the positive impact of metacognitively supported feedback on student achievement.

The combined development of pragmatic awareness, metacognition, and communication skills among pre-service teachers enables them to adopt a more sensitive, strategic, and effective approach in their interactions with students. Addressing these skills holistically encourages pre-service teachers to approach language teaching not only on a cognitive level but also from social and emotional perspectives, fostering a more effective learning environment.

Native language education is a process that goes beyond teaching grammar to encourage students to think, analyze, and manage their learning processes. In this context, enhancing pragmatic and metacognitive awareness should be a cornerstone of educational policies and curricula. Developing these awarenesses in pre-service teachers helps them deliver a more effective teaching experience for themselves and their students.

Purpose of the Study
This study aims to investigate the relationship between pragmatic awareness and communication skills and the mediating role of metacognitive awareness in this

relationship among pre-service teachers. Understanding how pragmatic awareness affects communication skills provides opportunities to develop more effective strategies in educational practices. The following hypotheses are proposed for this research:

- H1: There is a positive and significant relationship between pragmatic awareness and communication skills.
- H2: There is a positive and significant relationship between pragmatic awareness and metacognitive awareness.
- H3: Metacognitive awareness mediates the relationship between pragmatic awareness and communication skills.

Method

Research Design
In this study, the correlational research design, one of the quantitative research methods, was used. Correlational designs are used to describe and measure the relationship between two or more variables and are especially preferred in social sciences and educational research (Fraenkel et al., 2012). These studies allow variables to be examined in their natural environment without intervention, so there is no experimental control or manipulation (Ary et al., 2018). Researchers use this design to observe the relationships among variables in a specific sample and reveal the relational structure, which enables generalizations about the potential connections among variables (Gay et al., 2011).

Population and sample
To examine the relationship between pre-service teachers' pragmatic and metacognitive awareness and communication skills, data was collected from pre-service teachers studying at a state university's faculty of education in Turkey. As the correlation between pre-service teachers' pragmatic awareness and communication skills was calculated as 0.15, calculations made with the G*Power program revealed that a total of 249 samples would be sufficient with 80% power and 95% confidence level. In this study, data were collected from 250 pre-service teachers. However, due to incomplete responses, the data of 15 pre-service teachers were excluded from the dataset to ensure data reliability. The distribution of the pre-service teachers according to their gender and academic year is presented in Table 1.

Table 1.

Distribution of Pre-Service Teachers by Gender and Academic Year

Variable		n	%
Gender	Female	158	67.2
	Male	77	32.8
Academic Year	Freshman	51	21.7
	Sophomore	66	28.1
	Junior	51	21.7
	Senior	67	28.5
Total		235	100.0

When the distribution of pre-service teachers by gender variable was examined, it was found that 158 (67.2%) were female, and 77 (32.8%) were male. When the distribution by academic year was examined, it was found that 51 (21.7%) were freshman year students, 66 (28.1%) were sophomore year students, 51 (21.7%) were junior year students, and 67 (28.5%) were senior year students. A total of 235 pre-service teachers participated in the study.

Data Collection Tool

The following data collection tools were used in this study:

Personal Information Form: Prepared to collect demographic information about participants.

Metacognitive Awareness Scale: Developed by Durdukoca and Arıbaş (2019) for pre-service teachers, the scale consists of 18 items and three factors. The scale explains 45.03% of the total variance and has a Cronbach's alpha reliability coefficient of .75. The Cronbach's alpha value calculated in this study was .863. Confirmatory factor analysis was conducted, and the scale structure was confirmed (χ^2/df = 1.500, RMSEA = .045, TLI = .91, CFI = .92, and SRMR = .06).

Communication Skills Scale: Developed by Akkuzu and Akkaya (2014), this scale consists of 36 items and four factors: "competence", "barrier", "body language", and "appreciation". It covers the affective, cognitive, and behavioral dimensions of communication and has a Cronbach's alpha reliability coefficient of .814. Confirmatory factor analysis was conducted, and the scale structure was confirmed (χ^2/df = 2.920, RMSEA = .053, TLI = .96, CFI = .96, and SRMR = .049).

Pragmatic Awareness Scale: Developed by Gerez-Taşgın (2023), the scale includes 20 items categorized under "politeness", "context", "cooperation", "relation" and "speech acts". It is a valid and reliable tool for assessing the affective, cognitive, and behavioral dimensions of communication. In this study, the Cronbach's alpha reliability coefficient was .836. Confirmatory factor analysis was conducted, and the scale structure was confirmed (χ^2/df = 1.461, RMSEA = .043, TLI = .916, CFI = .929, and SRMR = .0531).

The ethical process in the study was as follows:

- Ethics committee approval was obtained from Atatürk University University Educational Sciences Ethics Committee (Date: 23.06.2021, Number: E-56785782-050.02.04-2100161803)
- Informed consent has been obtained from the participants.

Data Analysis

The mediation model testing the effect of metacognitive awareness in the relationship between pragmatic awareness and communication skills was applied. In this research, Preacher and Hayes's (2004) procedural steps were followed when testing the mediation model. Additionally, the bootstrapping procedure recommended by Preacher and Hayes (2004) was used to demonstrate the significance of the indirect effect tested with the mediation model.

Results

Analysis of the Pearson correlation coefficients for the relationships among pragmatic awareness, metacognitive awareness, and communication skills is presented in Table 2.

Table 2.

Correlation Among Pragmatic Awareness, Metacognitive Awareness, and Communication Skills

		Pragmatic Awareness	Metacognitive Awareness	Communication Skills
Pragmatic Awareness	r		.324**	.152*
	p		.000	.025
Metacognitive Awareness	r	.324**		.484**
	p	.000		.000
Communication Skills	r	.152*	.484**	
	p	.000	.000	

The results show a significant positive correlation between pragmatic awareness and metacognitive awareness (r = .324, n = 218, *p* < .01), between pragmatic awareness and communication skills (r = .152, n = 218, *p* < .05), and between metacognitive awareness and communication skills (r = .484, n = 218, *p* < .01).

The model aimed at testing the mediating role of metacognitive awareness in the relationship between pre-

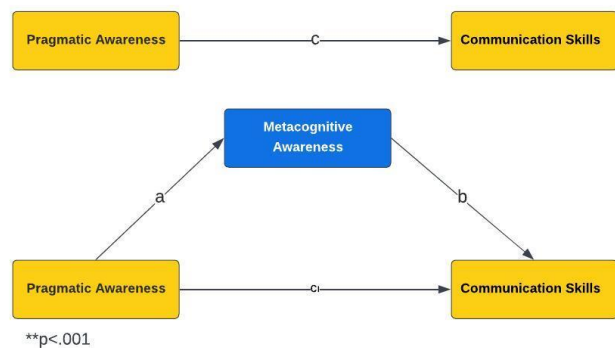service teachers' pragmatic awareness and communication skills is presented in Figure 1.

Figure 1.
Representation of the Mediation Model

To examine whether metacognitive awareness plays a mediating role in the relationship between pre-service

The analysis revealed a positive and significant moderate correlation between pragmatic awareness and metacognitive awareness (r = .32, *p* < .01), between pragmatic awareness and communication skills (r = .152, *p* < .05), and between metacognitive awareness and communication skills (r = .484; *p* < .01). Skewness and kurtosis coefficients calculated to assess the normal distribution of data ranged between -.457 and .686, indicating that the dataset exhibits normal distribution. The normal distribution criteria were evaluated based on George and Mallery's (2010) guidelines.

The results of the analysis related to the mediating role of metacognitive awareness in the relationship between pragmatic awareness and communication skills are presented in Table 4.

Table 4.
Mediating Role of Metacognitive Awareness in the Relationship Between Pre-Service Teachers' Pragmatic Awareness and Communication Skills

	Outcome Variables			
	Metacognitive Awareness		Communication Skills	
Pattern Paths	β	SH	β	SH
Pragmatic Awareness			.891*	.232

teachers' pragmatic awareness and communication skills, descriptive statistics related to the variables included in the model were first calculated. Correlation analysis was then performed to determine the relationships between variables, and the results are presented in Table 3.

Table 3.
Correlation Values and Descriptive Statistics Among Variables

	1	2	3
(1)Pragmatic Awareness	---	.324**	.152*
(2)Metacognitive Awareness		---	.484**
(3) Communication Skills			---
$\bar{X}$	79.71	65.66	117.84
Sd	7.66	9.47	10.65
Kurtosis	-.457	-.434	.686
Skewness	-.059	.122	.260

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

(c paths)				
R²			.262	
Pragmatic Awareness	.794*	0.229		
(a paths)				
R²	.165			
Pragmatic Awareness			.482*	.073
(c' paths)				
Metacognitive Awareness			.462*	.160
(b paths)				
R²			.542	
Indirect Impact			.367* (.118- .742)	

* *p*<.01

The total effect of pre-service teachers' pragmatic awareness on communication skills was found to be statistically significant (β = .891, *p* < .01). Similarly, the total effect of pragmatic awareness on metacognitive awareness was also statistically significant, yielding a positive path coefficient (β = .794, *p* < .01). The indirect effect between pragmatic awareness and communication skills was calculated as .367 with a 95% confidence interval of .118–.742, and since this interval does not include zero, the indirect effect was found to be statistically significant.
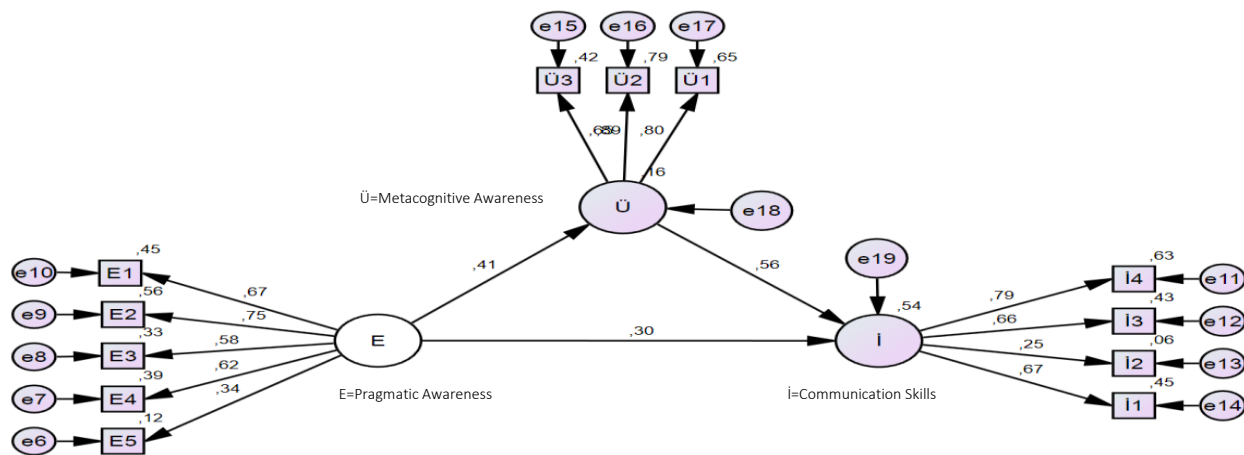
Path diagrams of the established model are presented in Figures 2 and 3.
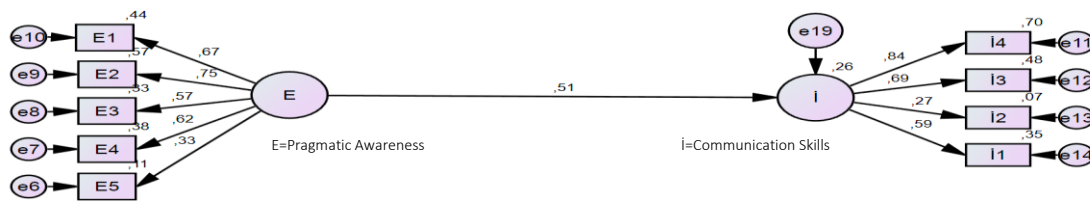
CMIN=41,654; DF=26; p=,027; CMIN/DF=1,602; RMSEA=,051; GFI=,963; CFI=,965

Figure 2.
Path Diagram of the Relationship Between Pragmatic Awareness and Communication Skills

CMIN=94,796; DF=51; p=,000; CMIN/DF=1,859; RMSEA=,061; GFI=,933; CFI=,948

Figure 3.
Path Diagram of the Mediating Role of Metacognitive Awareness in the Relationship Between Pragmatic Awareness and Communication Skills

The analysis conducted to determine the mediating role revealed that after including metacognitive awareness in the model, the standardized regression coefficient representing the predictive effect of pragmatic awareness on communication skills decreased from .51 to .30, and this result was found to be significant ($p < .001$). This finding demonstrates that metacognitive awareness mediates the relationship between pragmatic awareness and communication skills.

Discussion

This study examined the relationships among pragmatic awareness, metacognitive awareness, and communication skills in pre-service teachers and revealed the mediating role of metacognitive awareness in these relationships. The

findings align with the relevant literature, demonstrating the direct impact of pragmatic awareness on pre-service teachers' communication skills and how metacognitive awareness enhances this process. In this context, pragmatic awareness is emphasized as a factor that increases individuals' ability to establish more effective and conscious communication in social contexts (Bardovi-Harlig, 2013; Kasper & Rose, 2002). The ability to understand the social and cultural dimensions of language through pragmatic awareness improves not only pre-service teachers' verbal communication skills but also their relationships with students (Cohen, 2012; Taguchi, 2011). This supports teachers in employing a sensitive, empathetic, and culturally aware communication style in the classroom, which, in turn, boosts student motivation and participation.

Similarly, metacognitive awareness, as the ability to evaluate, regulate, and direct one's thinking processes, enhances the pedagogical effectiveness of pre-service teachers (Schraw & Dennison, 1994; Zimmerman, 2002). Flavell (1979) and later Pintrich (2002) highlighted the contribution of metacognitive awareness to the learning process, stating that it not only improves pre-service teachers' own learning strategies but also enables them to develop strategies to support their students' learning processes. Pre-service teachers with high metacognitive awareness can provide more effective feedback in communication with students and use more conscious language during lessons (Paris & Winograd, 1990; Paris & Paris, 2001). Therefore, improving metacognitive awareness allows teachers to better understand their students and provide appropriate learning strategies, contributing significantly to the quality of education.

Previous studies examining the relationship between pragmatic awareness and communication skills reveal the connection between these two concepts. For example, Schraw and Dennison (1994) investigated the impact of metacognitive strategies on learning processes, showing that these strategies effectively enhance individuals' learning abilities. Individuals with high pragmatic awareness better analyze texts and manage their learning processes more effectively. In the context of native language education, this enables students to develop better reading and writing skills.

The findings supporting the mediating role of metacognitive awareness in the relationship between pragmatic awareness and communication skills are consistent with significant studies in the literature. For instance, Zimmerman (2002) emphasizes the positive impact of metacognitive strategies on individuals' communication skills. Pre-service teachers with high metacognitive awareness are more competent in monitoring their thinking processes and developing effective communication strategies. This enhances the quality of the teaching process and directly impacts student success.

The results of this study highlight the critical role of these three variables in the pedagogical development of pre-service teachers while analyzing the effects of pragmatic and metacognitive awareness levels on communication skills. Communication skills in educational sciences have been supported by various studies as a determinant of pre-service teachers' professional competencies (Bardovi-Harlig & Dörnyei, 1998; Hattie & Timperley, 2007). Hattie and Timperley (2007) argue that teachers' ability to develop feedback mechanisms positively impacts student success, while individuals with high metacognitive awareness can use these skills more effectively. Bardovi-Harlig and Dörnyei (1998) also state that pre-service teachers with strong pragmatic awareness provide students with more meaningful and contextually relevant guidance during communication. In this regard, educational programs focusing on enhancing pre-service teachers' pragmatic and metacognitive awareness levels are essential for their strategic and effective use of communication skills.

Conclusion and Recommendations

In the context of native language education, these findings support the development of strategies aimed at increasing pre-service teachers' pragmatic and metacognitive awareness. In educational practices, increasing pre-service teachers' metacognitive awareness levels should be a decisive factor in improving communication skills. In this regard, teacher education programs should be structured to support metacognitive and pragmatic awareness (Hattie & Timperley, 2007).

Adopting policies to enhance these awareness levels in educational practices will enable pre-service teachers to develop their communication skills. Hattie and Timperley (2007) highlighted that evaluating learning processes is effective in improving individuals' communication skills. Effective communication for pre-service teachers directly affects student success. Therefore, educational programs should focus on developing these skills.

Finally, the findings of this study underscore the necessity of developing pedagogical approaches and policies that promote metacognitive and pragmatic awareness in teacher education. Zimmerman (2002) and Pintrich (2002) suggest that self-regulatory strategies and metacognitive skills enable pre-service teachers to contribute more consciously to educational processes. Similarly, Taguchi (2011) and Cohen (2012) emphasize that pragmatic awareness in language teaching provides deeper comprehension and contextual appropriateness in teacher-student interactions.

In light of these findings, future education policies and teacher training programs should be supported by content that encourages pre-service teachers to develop both cognitive and affective processes. Thus, pre-service teachers with high levels of pragmatic and metacognitive awareness can enhance their professional competence, ensuring an effective and empathetic teaching process.

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