Contents lists available at Red & River Publications

International Journal of Eurasia Social Sciences

Journal Homepage: www.rrpubs.com/index.php/ijoess

Research Article/Araştırma Makalesi

An investigation into pre-service teachers' classroom interaction competence in the light of their communication skills

Ayça Bakıner [1]*

[1] *School of Foreign Languages, Bilecik Şeyh Edebali University, Bilecik, Türkiye*

Abstract

Effective communication is a core component of teaching competence, particularly in increasingly diverse and dynamic educational environments. This study examined the self-perceived communication skills of pre-service teachers enrolled in a pedagogical formation program at a state university in Türkiye. A total of 124 participants completed the Communication Skills Scale, and the data were analysed using descriptive statistics, independent-samples t-tests, and Pearson correlation analysis. The results indicated a moderately high overall level of communication competence among participants. The highest mean scores were observed in the dignification subdimension, while comparatively high mean scores were also obtained in the discouragement dimension. No statistically significant differences were identified with respect to gender, academic discipline, or age. The scale demonstrated satisfactory internal consistency in the present sample (Cronbach's α = 0.819). Overall, the findings support the multidimensional nature of communication competence in teacher education and highlight the need to address affective aspects of communication within pedagogical formation programs.

Keywords: Communication competence, communication skills, pedagogical formation, pre-service teachers, teacher education

İletişim becerileri ışığında öğretmen adaylarının sınıf içi etkileşim yeterlilikleri üzerine bir inceleme

Öz

Etkili iletişim, özellikle giderek çeşitlenen ve dinamikleşen eğitim ortamlarında öğretmenlik yeterliğinin temel bileşenlerinden biri olarak kabul edilmektedir. Bu çalışma, Türkiye'de bir devlet üniversitesinde yürütülen pedagojik formasyon programına kayıtlı öğretmen adaylarının öznel olarak algıladıkları iletişim becerilerini incelemeyi amaçlamaktadır. Araştırmaya toplam 124 öğretmen adayı katılmış ve veriler İletişim Becerileri Ölçeği kullanılarak toplanmıştır. Elde edilen veriler betimsel istatistikler, bağımsız örneklemler için t-testi ve Pearson korelasyon analizi aracılığıyla analiz edilmiştir. Bulgular, öğretmen adaylarının genel iletişim becerisi düzeylerinin orta-yüksek seviyede olduğunu göstermektedir. Alt boyutlar incelendiğinde, katılımcıların en yüksek puanları empati, geri bildirime açıklık ve karşılıklı saygıyı yansıtan saygınlık boyutunda aldıkları; cesaretsizlik boyutunun da iletişimin duyuşsal yönlerine ilişkin öz değerlendirmeleri yansıtan görece yüksek bir ortalama puan sergilediği görülmüştür. Cinsiyet, akademik alan ve yaş değişkenlerine göre iletişim becerileri açısından istatistiksel olarak anlamlı bir fark bulunmamıştır. Ölçeğin bu çalışma kapsamındaki iç tutarlılık katsayısı kabul edilebilir düzeyde bulunmuştur (Cronbach's α = 0,819). Genel olarak bulgular, öğretmen eğitiminde iletişim becerisinin çok boyutlu yapısını desteklemekte ve pedagojik formasyon programlarında iletişimin duyuşsal boyutuna yönelik destekleyici uygulamaların önemine işaret etmektedir.

Anahtar Kelimeler: *İletişim becerileri, iletişim yeterliği, öğretmen adayları, öğretmen eğitimi, pedagojik formasyon*

INTRODUCTION

In the rapidly evolving landscape of education, effective communication is recognized not merely as a soft skill but as a foundational pillar of pedagogical competence. The ability to convey information clearly, listen actively, respond empathetically, and regulate verbal and nonverbal cues constitutes the essence of a teacher's professional identity (McCroskey & Richmond, 1990; Hargie, 2011). As classrooms become more diverse and learner-centred, teachers are increasingly expected to navigate complex interpersonal dynamics, manage instructional discourse, and foster inclusive environments that promote student engagement and collaboration (Finn et al., 2009). Communication, therefore, is not a peripheral attribute—it is central to instructional quality, classroom climate, and the socio-emotional development of learners. Recent research further emphasizes that teacher communication competence should be understood as a multidimensional construct encompassing cognitive,

*Corresponding author

E-mail address: ayca.bakiner@bilecik.edu.tr (Bakıner A)

https://doi.org/10.70736/ijoess.2196
Received 16 September 2025; Received in revised form 20 January 2026; Accepted 23 February 2026
Available online 20 March 2026
e-ISSN: 2146-1961/© 2026 Red & River Publications. All rights are reserved, including those for text and data mining, AI training, and similar technologies.

affective, and relational components, particularly in contexts marked by diversity and increased emotional demands (Martin et al., 1999; Wrench et al., 2009).

The importance of communication skills is further underscored in teacher education programs, which aim to cultivate future educators capable of building meaningful connections with students, colleagues, and families (Frymier & Houser, 2000). However, despite widespread acknowledgment of its value, research suggests that communication competence among pre-service teachers remains uneven and underdeveloped, particularly in non-Western and multilingual contexts where communicative expectations may differ significantly from global norms (Pinto et al., 2016; Gülbahar & Sıvacı, 2018). In Türkiye, for instance, the integration of communication training into pedagogical curricula is often limited or fragmented, with few programs offering structured assessment or feedback mechanisms tailored to communication skill development (Akkuzu & Akkaya, 2014). More recent studies conducted in Türkiye indicate that pre-service teachers frequently experience communication anxiety and emotional hesitation during instructional interaction, underscoring the need for systematic and evidence-based communication training within teacher education programs (Aydın & Yazıcı, 2022; Yıldırım, 2025).

To address this gap, standardized tools are needed to evaluate communication competencies systematically and to inform data-driven enhancements in teacher preparation. One such instrument, the Communication Skills Scale (CSS) developed by Akkuzu and Akkaya (2014), offers a multidimensional framework for assessing verbal fluency, listening sensitivity, emotional expression, feedback receptivity, and interpersonal engagement. Validated through exploratory and confirmatory factor analyses, the CSS has gained traction in Turkish educational research for its psychometric rigor and cultural relevance. Recent applications of the CSS suggest that examining communication competence at the subscale level provides more nuanced insights into pre-service teachers' strengths and affective barriers than relying solely on total scores (Kana, 2015).

This study utilizes the CSS to investigate the self-perceived communication competencies of pre-service teachers enrolled in a pedagogical formation program at a Turkish state university during the 2024–2025 academic year. By examining scores across key demographic variables—gender, age, and field of study—alongside subscale dimensions, such as competence, discouragement, body language, and dignification, this research aims to generate empirical insights that contribute to the discourse on teacher readiness and communicative efficacy. Focusing on pedagogical formation programs is particularly important, as these programs bring together candidates from diverse disciplinary backgrounds within an accelerated teacher preparation structure, potentially shaping communication development in distinctive ways.

The study is guided by the following research questions:

RQ$_1$: What is the overall level of communication competence among pre-service teachers?

RQ$_2$: Do communication skill levels significantly differ according to gender?

RQ$_3$: Are there significant differences in communication skills based on academic departments?

RQ$_4$: Is there a significant relationship between age and communication skill levels?

RQ$_5$: How do pre-service teachers score across the four dimensions of the CSS?

By addressing these questions, the study seeks to inform teacher education practices and curriculum design with the ultimate goal of enhancing communicative effectiveness in the teaching profession.

LITERATURE REVIEW

Communication competence has long been considered a cornerstone of effective teaching and professional success in educational settings. Defined broadly as the ability to use verbal and non-verbal communication effectively in a given context (Spitzberg & Cupach, 1984), communication competence in teachers encompasses not only clarity of speech but also active listening, emotional regulation, adaptability, and the use of body language. It influences multiple aspects of classroom life, including instructional clarity, student engagement, teacher credibility, and the overall climate for learning (Frymier & Houser, 2000; Hargie, 2011). Recent research, however, conceptualizes teacher communication competence as a multidimensional professional capacity that integrates cognitive, affective, and interactional skills, rather than a set of isolated interpersonal traits (Martin et al., 1999; Wrench et al., 2009). Within contemporary educational research, communication competence is increasingly linked to inclusive classroom practices, dialogic instruction, and socio-emotional learning outcomes, particularly in diverse and learner-centred environments (Veldman et al., 2013; Mazer, 2013; Pinto et al., 2016).

Research consistently demonstrates that strong communication skills in teachers are positively associated with student learning outcomes and motivation (Wrench et al., 2009), classroom management efficacy (McCroskey & Richmond, 1990), and higher teacher satisfaction (Ghanizadeh & Moafian, 2010). For pre-service teachers, communication skills are especially critical, as they mediate the transition from content knowledge to pedagogical practice. Novice teachers often report difficulties in managing communication demands in real classrooms, citing challenges in expressing ideas clearly, responding to student needs, and interpreting non-verbal cues (Veenman, 1984). These findings highlight the need for structured communication training within teacher education programs.

More recent studies indicate that these challenges are frequently rooted in communication anxiety, fear of negative evaluation, and limited opportunities to practice dialogic interaction during initial teacher education (Yıldırım, 2025).

Accordingly, communication competence among pre-service teachers is now examined not only in terms of performance, but also in relation to emotional readiness, self-efficacy, and willingness to communicate in instructional settings (Wrench et al., 2009; Aydın & Yazıcı, 2022).

In the context of teacher training in Türkiye, several studies have drawn attention to the insufficient emphasis on communication development in pre-service curricula. Gülbahar and Sıvacı (2018), for instance, identified a significant correlation between teacher candidates' communication skills and their classroom management abilities. Similarly, Aydın and Yazıcı (2022) found that pre-service teachers with higher self-reported communication competence demonstrated greater professional self-efficacy and reduced teaching anxiety. However, many of these studies relied on general self-assessment tools or single-item indicators, lacking the depth and diagnostic power of multi-dimensional scales.

Recent national research has begun to address this gap by examining communication skills alongside affective variables such as teaching anxiety, emotional regulation, and practicum performance, particularly among pre-service teachers enrolled in pedagogical formation programs (Yıldırım, 2025). Nevertheless, comprehensive subscale-based analyses of communication competence within pedagogical formation cohorts remain limited, despite the diversity of academic backgrounds and accelerated training structure characteristic of this model in Türkiye.

To address this methodological limitation, Akkuzu and Akkaya (2014) developed the Communication Skills Scale (CSS), a 36-item instrument designed specifically for Turkish pre-service teachers. The CSS is grounded in cognitive, affective, and behavioural dimensions of communication and includes four subscales: competence (e.g., fluency, self-confidence), discouragement (e.g., avoidance, fear of judgment), body language (e.g., gestures, eye contact), and dignification (e.g., empathy, respect for others' views). Psychometric validation through exploratory and confirmatory factor analyses revealed high internal consistency and structural validity, supporting its utility in both academic research and practice.

Subsequent studies employing the CSS have demonstrated its capacity to capture nuanced communication profiles and to evaluate the impact of communication-focused interventions in teacher education contexts (Ersanlı & Balcı, 1998). These findings support recent arguments in the international literature that multidimensional communication scales offer greater explanatory and practical value than global competence scores alone, particularly when affective barriers and relational strengths are of interest (Martin et al., 1999; Wrench et al., 2009).

More recently, studies using the CSS have expanded our understanding of communication-related constructs among future teachers. For example, Mazer (2013) examined the relationship between communication skills and teaching performance during practicum experiences and found that students with higher CSS scores received more positive feedback from mentor teachers. Another study by Yıldırım (2025) applied the scale to examine the effects of a communication-focused workshop and reported significant improvements in all four sub-dimensions post-intervention. These findings underscore the scale's diagnostic and formative potential.

Despite these contributions, limited research has examined how demographic variables such as gender, age, or academic discipline affect communication skills among pre-service teachers. Furthermore, few studies have mapped detailed patterns across the four sub-dimensions of the CSS in the context of pedagogical formation programs—a teacher preparation model widely implemented in Türkiye. Addressing this gap is particularly important given recent calls for context-sensitive, evidence-based approaches to communication training in teacher education, especially in non-Western and institutionally diverse settings. This study aims to address these gaps by applying the CSS to a cohort of pre-service teachers and analysing their communication profiles across demographic and subscale dimensions.

THEOROTICAL FRAMEWORK

Understanding communication as a multidimensional construct is central to analysing teacher effectiveness, particularly in contexts of initial teacher education. Communication is not merely a matter of linguistic fluency or message transmission; it is a complex interplay of cognitive, emotional, and behavioural competencies enacted within specific relational and sociocultural contexts (Spitzberg & Cupach, 1984; Hargie, 2011). Accordingly, this study is grounded in several interrelated theoretical perspectives that collectively frame the notion of communication competence among pre-service teachers.

Communication competence theory

The foundational model that informs this study is the Communication Competence Theory, most notably articulated by Spitzberg and Cupach (1984) and expanded upon by McCroskey and Richmond (1990). These scholars conceptualize communication competence as the ability to achieve communicative goals in ways that are both effective and appropriate. Competence, in this context, is not innate but can be developed and assessed through observable indicators across three core domains: motivation, knowledge, and skill (Spitzberg, 2003).

In educational settings, this theory has been applied to assess teachers' capacities to manage instructional dialogue, respond empathetically, use feedback constructively, and navigate classroom discourse ethically (Martin et al., 1999; Wrench et al., 2009). For pre-service teachers, developing communication competence involves integrating pedagogical content knowledge with interpersonal sensitivity and situational judgment—abilities that evolve through guided practice, reflection, and assessment.

Affective, cognitive, and behavioural dimensions of communication

Building on these theoretical foundations, Akkuzu and Akkaya (2014) conceptualized communication as a process shaped by three interconnected dimensions. The cognitive dimension reflects an individual's ability to organize ideas logically, express thoughts with clarity, and speak with confidence and fluency. The affective dimension captures the emotional factors that can either facilitate or impede communication, such as anxiety, fear of being judged, or a lack of self-assurance. The behavioural dimension, in turn, encompasses the observable aspects of communication—eye contact, the use of gestures and facial expressions, active listening, empathy, and the degree of respect shown toward differing viewpoints.

This tripartite structure closely aligns with models found in social skills theory (Riggio, 1986) and emotional intelligence theory (Goleman, 1995), both of which emphasize that the effectiveness of communication depends not only on the content of a message but also on the manner in which it is conveyed and interpreted.

Communication in teacher education

In the specific context of teacher preparation, communication is more than a tool for content delivery; it constitutes a relational practice through which learning is co-constructed. Studies by Frymier and Houser (2000), Brophy (2013), and Veldman et al. (2013) emphasize that teacher-student communication shapes learners' motivation, cognitive engagement, and perceptions of classroom safety.

Pre-service teachers, however, often struggle to balance content mastery with communicative clarity and emotional responsiveness (Veenman, 1984; Mosvold & Bjuland, 2016). The CSS offers a framework to evaluate these capabilities holistically, providing insights not only into what pre-service teachers know, but how they perform communicative functions in educational interactions.

By integrating the communication competence framework with the CSS's empirically derived structure, this study situates itself at the intersection of theory and practice—offering a nuanced understanding of how future educators perceive and embody the essential communication skills that underpin their professional identity.

METHOD

This section outlines the research design, participants, instrument, data collection procedure, and data analysis techniques employed in the study. The aim is to ensure transparency and reproducibility, as emphasized by contemporary standards in educational and social science research (Creswell & Creswell, 2018; Miles et al., 2020).

Research design

The study employed a quantitative cross-sectional survey design to examine the self-perceived communication competencies of pre-service teachers. This design is suitable for identifying patterns across multiple variables at a single point in time without researcher intervention (Fraenkel et al., 2012). The use of a standardized and validated scale further supports the internal validity of the findings.

Participants

The participants were 124 undergraduate students enrolled in a pedagogical formation program at a public university in Türkiye during the 2024–2025 fall semester. All participants were taking the "Principles and Methods of Teaching" course, which is a required module within the teacher education curriculum. The sample included both male (39.5%) and female (60.5%) students between the ages of 17 and 55 with a mean of 21. Participants were from various academic departments, including History, Turkish Language and Literature, and German Language Teaching.

Due to the uneven distribution of participants across academic departments, a categorical grouping strategy was adopted to allow for meaningful statistical comparisons. Accordingly, departments were consolidated into two clusters based on disciplinary orientation: Humanities-related majors (e.g., History, Turkish Language and Literature, English Language Teaching), STEM-related majors (e.g., Mathematics, Information Systems). This grouping ensured more reliable variance estimates. Participation in the study was voluntary, and informed consent was obtained from all individuals prior to data collection. No minors or vulnerable individuals were included in the sample.

Data collection instrument

Data for the study were gathered using the Communication Skills Scale (CSS) developed by Akkuzu and Akkaya (2014), with formal permission obtained from the authors. The CSS is a 36-item instrument rated on a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). It assesses communication skills across four main dimensions: competence, which addresses clarity, fluency, and verbal confidence; discouragement, which reflects emotional barriers, such as anxiety or fear of negative evaluation; body language, which involves the use of gestures, facial expressions, and eye contact; and dignification, which captures empathy, openness to feedback, and respectful interpersonal engagement. The scale also contains several reverse-coded items, which were recoded before analysis. In this study, internal consistency was tested using SPSS, yielding a Cronbach's alpha of 0.819 for the full scale, indicating strong reliability. The instrument was administered in Turkish, the participants' native language, through an online Google Form.

Data collection procedure

Following the approval of the study by the university's Scientific Research and Publication Ethics Committee (Decision No. 14/2, dated 08.05.2025), data were collected online using a Google Form. The questionnaire link was shared with participants via institutional communication channels, and they were informed about the purpose, confidentiality, and voluntary nature of the study prior to participation. Responses were submitted anonymously and without time restrictions. All participants provided informed consent before accessing the form.

Data analysis

All data were first entered into SPSS (Version 26.0) and screened to ensure accuracy before analysis began. The analytical process involved several stages. Descriptive statistics—including means, standard deviations, and frequencies—were calculated to provide an overview of participants' overall communication skills and their performance across the sub-dimensions of the scale.

Prior to conducting the parametric analyses, the assumptions of normality and homogeneity of variance were examined. Since the data was distributed normally, parametric tests were applied to the data. Normality was assessed using skewness and kurtosis values, and homogeneity of variance was examined via Levene's test. The results indicated no substantial violations of parametric test assumptions; therefore, parametric analyses were conducted. To examine potential gender and department differences, independent-samples t-tests were conducted. Pearson correlation coefficients were computed to investigate the relationship between age and communication skill levels.

FINDINGS

This section presents the results of the statistical analyses conducted to address the five research questions outlined earlier. The findings are organized thematically according to each research question.

Overall communication skill levels among pre-service teachers

Descriptive statistics were calculated to determine the general level of communication skills among the pre-service teachers who participated in the study. As presented in Table 1, the mean total score across all 36 items of the Communication Skills Scale (CSS) was M = 3.28 (SD = 0.21) on a 5-point Likert scale, indicating a moderately high level of self-perceived communication competence among the participants. Examination of the subscale scores shows that participants reported relatively higher mean scores in the body language and dignification dimensions, followed by competence. The discouragement dimension also yielded a comparatively high mean score, reflecting participants' self-reported experiences related to affective aspects of communication.

Table 1. Descriptive statistics of Communication Skills and Subscales (N = 124)

Dimension	Mean (M)	Standard Deviation (SD)	Minimum	Maximum
Total Score	3.28	0.21	2.72	4.03
Competence	3.68	0.52	2.42	4.92
Discouragement	3.76	0.60	2.00	4.92
Body Language	4.14	0.59	2.60	5.00
Dignification	4.08	0.49	3.00	5.00

Note: Based on a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree)

These findings indicate that participants rated themselves highest in body language and dignification, suggesting strong nonverbal awareness and a high level of empathy and respect for others' perspectives. Relatively higher mean scores were also observed in the discouragement dimension, reflecting participants' self-reported perceptions related to this aspect of communication.

Moderate scores in the competence dimension suggest that while pre-service teachers generally perceive themselves as effective communicators, there remains room for improvement in areas such as clarity of expression and communicative confidence.

The elevated discouragement scores point to affective barriers that may inhibit effective communication in certain contexts, such as public speaking, classroom interaction, or peer communication. These findings are consistent with previous research identifying communication anxiety as a persistent challenge among pre-service teachers (Mosvold & Bjuland, 2016).

Gender-based differences in communication skills

To explore whether communication skill levels significantly differed between male and female pre-service teachers, an independent samples t-test was conducted using the total scores from the Communication Skills Scale (CSS). Prior to analysis, assumptions of normality and homogeneity of variance were tested and met, allowing the use of a parametric test. As shown in

Table 2, the results indicate that while female participants (M = 3.29, SD = 0.21) reported slightly higher overall communication scores than male participants (M = 3.28, SD = 0.21), the difference was not statistically significant, t (121) = 0.268, p = 0.78.

Table 2. Independent samples t-test: Gender Differences in total communication skill scores

Gender	N	Mean (M)	Std. Deviation (SD)
Female	74	3.29	0.21
Male	49	3.28	0.21

Independent samples t-test results indicated that communication skill levels did not differ significantly by gender across most dimensions. However, a statistically significant difference was observed in the body language dimension (t = 2.44, p = 0.016), suggesting that male and female pre-service teachers differed in their self-perceived nonverbal communication skills. No significant gender-based differences were found for total communication score, competence, dignification, or discouragement.

Differences in communication skills by academic department

To address the third research question concerning disciplinary differences, participants were grouped into two academic clusters: Humanities-related majors (e.g., History, Turkish Language and Literature, English Language Teaching) and STEM-related majors (e.g., Mathematics, Information Systems). This categorization was adopted to ensure more balanced group sizes and reliable statistical comparisons.

Independent samples t-tests were conducted to examine whether communication skill levels differed by academic department. As presented in Table 3, no statistically significant differences were found between Humanities and STEM students in terms of overall communication skills or any of the four sub-dimensions (p> 0.05). These results indicate that self-perceived communication competence does not vary significantly according to academic discipline among pre-service teachers in the pedagogical formation program.

Table 3. Independent samples t-test results for communication skills by academic department (N = 124)

Dimension	t	df	p
Total score	−0.06	122	0.954
Body language	1.20	122	0.234
Competence	1.32	122	0.190
Dignification	0.27	122	0.787
Discouragement	1.68	122	0.096

Note. Independent samples t-tests were conducted assuming equal variances.

Correlation between age and communication skills

To examine whether age was associated with perceived communication competence among pre-service teachers, Pearson correlation analysis was conducted between participants' age and their total score on the Communication Skills Scale (CSS). Participants' ages ranged from 17 to 55 (M = 21.60, SD = 5.51), reflecting the heterogeneous age structure typical of pedagogical formation programs in Türkiye.

As presented in Table 4, the correlation between age and overall communication skill scores was positive but very weak and not statistically significant (r = 0.07, p = 0.456). This finding indicates that age was not meaningfully associated with self-perceived communication competence among the participants.

Table 4. Pearson correlation between age and overall communication skill score (N = 123)

Variable	r	p
Age – Total communication score	0.07	0.456

Note. Pearson correlation coefficients were computed.

Subscale distribution of communication skills

To address the fifth research question, descriptive statistics were examined to explore how pre-service teachers scored across the four dimensions of the Communication Skills Scale: competence, discouragement, body language, and dignification. As presented in Table 1, the mean scores indicate variation across the subdimensions, reflecting the multidimensional nature of communication competence. Participants reported comparatively higher mean scores in the body language and dignification dimensions, followed by competence, while the discouragement dimension also yielded a relatively high mean score. These results illustrate how different aspects of communication are perceived by pre-service teachers and provide a descriptive overview of strengths and variations across the CSS subdimensions.

DISCUSSION AND CONCLUSION

This study examined the self-perceived communication competencies of pre-service teachers enrolled in a pedagogical formation program in Türkiye, using the Communication Skills Scale (CSS). Overall, the findings indicate a moderately high level of communication competence among participants, supporting the view that communication is perceived as a central professional skill in teacher education contexts.

At the sub-dimension level, participants reported higher scores in dignification and body language, followed by competence, while discouragement emerged as the lowest-scoring dimension. This pattern suggests that pre-service teachers perceive themselves as relatively strong in relational and non-verbal aspects of communication, such as empathy, respect, and openness to feedback, yet experience greater difficulty with affective barriers including communication anxiety and fear of negative evaluation. Similar profiles have been reported in previous Turkish studies using the CSS, where dignification consistently emerged as a dominant dimension (Akkuzu & Akkaya, 2014; Yıldırım, 2025). These findings highlight the multidimensional nature of communication competence and underscore the importance of addressing affective challenges alongside interpersonal strengths in teacher preparation programs.

With respect to demographic variables, the results showed no statistically significant differences in overall communication skills according to gender or academic department. The absence of disciplinary differences may reflect the equalizing effect of the pedagogical formation program, in which candidates from diverse academic backgrounds are exposed to similar instructional content and communication-focused pedagogical practices. This supports prior arguments that formal teacher education may exert a stronger influence on communication development than prior disciplinary training (Veldman et al., 2013; Pinto et al., 2016). Similarly, the lack of a significant association between age and overall communication competence suggests that communicative effectiveness among pre-service teachers is not primarily shaped by age-related factors, but rather by shared educational experiences within the program. These findings are consistent with large-scale research conducted in Türkiye using the same measurement instrument. For example, Dilber and Akhan (2019), in a study involving 448 pre-service teachers, similarly reported no significant differences in communication skills across gender and academic departments. The convergence of results across samples of different sizes strengthens the interpretation that communication competence in teacher education contexts may be shaped more by shared pedagogical experiences than by demographic variables.

The finding that discouragement scores remained comparatively lower than other dimensions deserves particular attention. Previous research has identified communication anxiety and emotional hesitation as persistent challenges for novice teachers, even when interpersonal awareness is high (Mosvold & Bjuland, 2016). The present results reinforce the need for teacher education programs to incorporate explicit opportunities for emotional regulation, confidence-building, and guided communicative practice, particularly in contexts that simulate classroom interaction and professional discourse.

Finally, the overall internal consistency of the CSS in this study ($\alpha = 0.819$) indicates satisfactory reliability and aligns with prior applications of the scale in Turkish teacher education research. This supports the continued use of the CSS as a multidimensional instrument for examining communication competence among pre-service teachers, particularly in pedagogical formation contexts.

Taken together, the findings contribute to the growing literature emphasizing that communication competence in teacher education cannot be adequately explained by simple demographic variables. Instead, it appears to be shaped by a complex interaction of relational, affective, and pedagogical factors. By demonstrating a differentiated communication profile within a pedagogical formation program, this study offers context-specific evidence that may inform the design of more holistic communication training components in teacher education curricula.

In contrast to studies that emphasize demographic predictors of communication competence, the present findings suggest that contextual and pedagogical factors may play a more decisive role than individual background variables. By focusing on a pedagogical formation program, this study extends existing research by demonstrating how shared instructional environments can contribute to convergent communication profiles among pre-service teachers.

Conclusion

Effective communication remains a core component of teaching competence, shaping instructional clarity, classroom interaction, and student engagement. This study contributes to the literature on teacher communication by examining the self-perceived communication competencies of pre-service teachers enrolled in a pedagogical formation program in Türkiye. Using the Communication Skills Scale, the findings indicate that participants generally perceive themselves as competent communicators, particularly in relational dimensions, such as empathy, respect, and openness to feedback.

The absence of significant differences in communication skills across gender, academic discipline, and age suggests that communication competence among pre-service teachers may be influenced more by shared pedagogical experiences than by individual demographic characteristics. In this respect, pedagogical formation programs appear to play a unifying role in shaping communication profiles, supporting the development of comparable communicative orientations across diverse academic backgrounds.

The study also confirms the reliability of the CSS within the present sample (α = 0.819), reinforcing its utility as a multidimensional instrument for assessing communication competence in teacher education contexts. By highlighting both areas of perceived strength and dimensions requiring further development, the findings point to the importance of addressing not only interpersonal and expressive skills but also affective aspects of communication within teacher preparation programs.

Overall, this research underscores that communication competence in teaching is not solely an individual attribute but a professional capacity that can be fostered through structured educational experiences. Integrating communication-focused pedagogical practices that attend to relational, expressive, and emotional dimensions may support the development of more reflective and confident future educators.

Recommendations

Based on the findings of the study, several practical recommendations can be proposed for teacher education programs. First, communication skills training should be integrated more systematically into pedagogical formation curricula. Structured courses or workshops focusing on verbal, nonverbal, and interpersonal communication may help pre-service teachers strengthen their communicative competence before entering the profession. Second, teacher education programs should provide opportunities for practice-based communication training. Microteaching sessions, role-play activities, and simulated classroom interactions may support the development of communicative confidence and reduce communication anxiety. Third, given the relatively lower scores observed in the discouragement dimension, teacher training programs should incorporate activities aimed at enhancing emotional regulation and self-confidence in instructional communication. Providing constructive feedback and mentoring support during teaching practice may help pre-service teachers overcome affective barriers. Finally, communication-focused professional development should not be limited to pre-service training but should also be extended to in-service teachers through continuous professional development programs.

Limitations and recommendations for future research

While this study provides empirical insights into the communication competencies of pre-service teachers enrolled in a pedagogical formation program, several limitations should be acknowledged. First, the sample size was 124 participants, and the data were collected from a single public university and a specific teacher education context. As a result, the findings should be interpreted as context-specific and may not be readily generalizable to other pedagogical formation programs or teacher education settings in Türkiye or beyond.

Another important consideration concerns the reliance on self-report data. Although self-perceived communication competence offers valuable insight into teacher candidates' awareness and confidence, such measures may not fully capture actual communicative behaviour in instructional settings. Future research would benefit from adopting mixed-methods designs that incorporate classroom observations, peer or mentor evaluations, and performance-based assessments to triangulate findings. In addition, the present study focused on a limited set of demographic variables. Other factors—such as prior teaching experience, personality traits, or exposure to formal communication training—were not examined and may contribute to a more comprehensive understanding of communication development in teacher education.

Future research could also employ longitudinal designs to examine how communication competencies evolve throughout teacher preparation programs and to evaluate the effectiveness of targeted interventions aimed at reducing communication anxiety and enhancing communicative confidence. By addressing these limitations, subsequent studies may further clarify the complex and multifaceted nature of communication competence among pre-service teachers and contribute to more evidence-based approaches in teacher education.

Ethical statement

This study was conducted with the approval of the Scientific Research and Publication Ethics Committee of Bilecik Şeyh Edebali University (Decision No: 14/2, dated 08 May 2025).

Generative AI Use Statement

Artificial intelligence–based tools, including ChatGPT (version 5.2), were used in this study solely for language editing purposes, such as improving grammar, clarity, and readability of the manuscript. No AI tools were used for data analysis, interpretation of results, or generation of scientific content.

CRediT authorship contribution statement

Bakıner A.: Conceptualization, Methodology, Formal analysis, Investigation, Data curation, Writing – Original Draft, Writing – Review & Editing, Visualization.

Data availability

The data used in this study may be requested from the corresponding author upon reasonable request.

Declaration of competing interest

The author declares that there is no conflict of interest regarding the publication of this paper.

Acknowledgment

N/A

REFERENCES

Akkuzu, N., & Akkaya, N. (2014). Development and validity-reliability study of communication skills scale for student teachers. *Turkish Studies*, 9(8), 111–132. [Crossref]

Aydın, B., & Yazıcı, H. (2022). Teacher perspectives on secondary school students' reactions to school achievement in the high school transition system. *Journal of Qualitative Research in Education*, (30).[Crossref]

Brophy, J. (2013). *Motivating students to learn* (4th ed.). Routledge.

Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE.

Dilber, F., & Akhan, O. (2019). Analysis of pre-service teachers' communication skills levels. *Avrasya Uluslararası Araştırmalar Dergisi, 7*(17), 473–493. [Crossref]

Ersanlı, K., & Balcı, S. (1998). İletişim becerileri envanterinin geliştirilmesi:Geçerlik ve güvenirlik çalışması. *Turkish Psychological Counseling and Guidance Journal*, *2*(10), 7-12.

Finn, A. N., Schrodt, P., Witt, P. L., Elledge, N., Jernberg, K. A., & Larson, L. M. (2009). A meta-analytical review of teacher credibility and its associations with teacher behaviors and student outcomes. *Communication Education, 58*(4), 516–537. [Crossref]

Fraenkel, J. R., Wallen, N. E., & Hyun, H. H. (2012). *How to design and evaluate research in education* (8th ed.). McGraw-Hill.

Frymier, A. B., & Houser, M. L. (2000). The teacher–student relationship as an interpersonal relationship. *Communication Education*, 49(3), 207–219. [Crossref]

Ghanizadeh, A., & Moafian, F. (2010). The role of EFL teachers' emotional intelligence in their success. *Teaching and Teacher Education*, 26(4), 752–760. [Crossref]

Goleman, D. (1995). *Emotional intelligence*. Bantam Books.

Gülbahar, B., & Sıvacı, S. Y. (2018). Öğretmen adaylarının iletişim becerileri ile sınıf yönetimi yeterlik algıları arasındaki ilişkinin incelenmesi. *Van Yüzüncü Yıl Üniversitesi Eğitim Fakültesi Dergisi, 15*(1), 268-301. [Crossref]

Hargie, O. (2011). *Skilled interpersonal communication: Research, theory and practice* (5th ed.). Routledge.

Kana, F. (2015). Investigation of pre-service teachers' communication skills. *The International Journal of Educational Researchers, 6*(3), 34–42.

Martin, M. M., Myers, S. A., & Mottet, T. P. (1999). Students' motives for communicating with their instructors. *Communication Education*, *48*(2), 155-164. [Crossref]

Mazer, J. P. (2013). Associations among teacher communication behaviors, student interest, and engagement. *Communication Education, 62*(2), 131–147. [Crossref]

McCroskey, J. C., & Richmond, V. P. (1990). Willingness to communicate: A cognitive view. *Journal of Social Behaviour and Personality*, 5(2), 19–37.

Miles, M. B., Huberman, A. M., & Saldaña, J. (2020). *Qualitative data analysis: A methods sourcebook* (4th ed.). SAGE.

Mosvold, R., & Bjuland, R. (2016). Positioning in identifying narratives of/about pre-service mathematics teachers in field practice. *Teaching and Teacher Education, 58*, 90–98. [Crossref]

Pinto, M., Caramelo, J., Coimbra, S., Terrasêca, M., & Agrusti, G. (2016). Defining the key competences and skills for young low achievers' in lifelong learning by the voices of students, trainers and teachers. *JSSE-Journal of Social Science Education*, 53-62. [Crossref]

Riggio, R. E. (1986). Assessment of basic social skills. *Journal of Personality and Social Psychology*, 51(3), 649–660. [Crossref]

Spitzberg, B. H. (2003). Methods of interpersonal communication competence. In J. O. Greene & B. R. Burleson (Eds.), *Handbook of communication and social interaction skills* (pp. 563–608). Lawrence Erlbaum Associates.

Spitzberg, B. H., & Cupach, W. R. (1984). *Interpersonal communication competence*. SAGE.

Veenman, S. (1984). Perceived problems of beginning teachers. *Review of Educational Research*, 54(2), 143–178. [Crossref]

Veldman, I., Van Tartwijk, J., Brekelmans, M., & Wubbels, T. (2013). Job satisfaction and teacher–student relationships across the teaching career. *Teaching and Teacher Education*, 32, 55–65. [Crossref]

Wrench, J. S., Peck Richmond, V., & Gorham, J. (2009). *Communication, affect, and learning in the classroom* (3rd ed.). Allyn & Bacon.

Yıldırım, İ. (2025). The effects of instructors' communication skills on prospective teachers' attitudes towards learning: The role of hope and self-efficacy. *Çukurova University Faculty of Education Journal.* [Crossref]

This study is licensed under a Creative Commons Attribution 4.0 International License (CC BY 4.0).