Check for updates

# Non-Verbal Communication in Education: Teachers' Views and Perceptions in Greece

**Kalampichis Emmanouil**[1]
**Makavelou Paraskevi**[2]
**Bardakas Stavros**[3]
**Roka Athina**[4]
**Petkou Dafni**[5] ✉

[1]*Department of Early Childhood Education and Care, International Hellenic University, Alexander Campus, 57400, Greece, IT Teacher, Director of Massari Junior High School, Rhodes, Greece.*
[2,4]*Department of Early Childhood Education and Care, International Hellenic University, Alexander Campus, 57400, Greece, Physical Education Teacher, Greece.*
[3]*Department of Early Childhood Education and Care, International Hellenic University, Alexander Campus, 57400, Greece, Electrical Engineer Teacher, Director of 1st EPAL Arta, Greece.*
[5]*Department of Early Childhood Education and Care, International Hellenic University, Alexander Campus, 57400, Greece.*
[1]*Email: mkalampihis@gmail.com*
[2]*Email: vivitefaa@yahoo.gr*
[3]*Email: smpardakas@gmail.com*
[4]*Email: athinaroka@gmail.com*
[5]*Email: dafnipetk@ihu.gr*
*(Corresponding Author)*

## Abstract

This paper investigates the role of non-verbal communication (NVC) in Greek education, focusing on teachers' views, practices, readiness, and challenges. The results show that teachers universally recognize the high importance of NVC, believing that it significantly improves the teacher-student relationship, comprehension of material, and classroom atmosphere. They frequently use it in the classroom for teaching and behavior management, mainly empirically and intuitively. However, most teachers have not received formal training in NVC, leading to moderate self-assessed readiness and difficulties in application. The research emphasizes the imperative need to integrate NVC into initial and ongoing teacher training, with an emphasis on experiential methods, to fully utilize its potential.

**Keywords:** Classroom management, Education, Non-verbal communication, Teaching, Training.

## 1. Introduction

Beyond words, an entire world of communication unfolds, a silent language that critically shapes how we perceive others, revealing intentions and emotions that words alone often fail to express. The correct interpretation and effective use of these non-verbal cues are foundational for successful communication in all aspects of human interactions, including the dynamic environment of the classroom (Butt & Shafiq, 2013).

The current exploration of the role of non-verbal communication (NVC) in education reveals multiple and significant benefits (Bunglowala & Bunglowala, 2015). Understanding and effectively applying NVC can function as a mechanism for emotional mediation in learning (Li & Jiang, 2022; Stamatis & Kostoula, 2021), facilitating classroom management (Bunglowala & Bunglowala, 2015; Naz et al., 2023; Chatzigeorgiou, 2023), fostering stronger relationships between teachers and students (Bunglowala & Bunglowala, 2015), and influencing the expectations and behavior of both (Šerić, 2020). Increased student participation and motivation (Khuman, 2024), reduced anxiety, and enhanced self-confidence (Keelson et al., 2024; Šerić, 2020) constitute additional significant benefits.

However, despite its crucial importance, NVC is often overlooked or underestimated in the educational process (Li & Jiang, 2022), possibly due to the emphasis often placed on verbal communication during teaching (Abdulrahman et al., 2022). This discrepancy between theoretical recognition and practical application highlights a critical research question. The present paper aims to deepen the investigation into the role of NVC in education and its contribution to improving learning. Specifically, it focuses on the forms of NVC used, teachers' perceptions and practices, their readiness, and the challenges they face regarding the utilization of NVC in the classroom. The ultimate goal is to formulate evidence-based proposals for a more effective and supportive educational framework, based on findings from the Greek educational reality.

## 2. Literature Review

### 2.1. The Concept of Non-Verbal Communication

NVC refers to the transmission of thoughts, data, beliefs, behaviors, and emotions without the use of words. Essentially, it encompasses every form of non-linguistic behavior that is perceived through the senses and influences interaction between people. It functions in parallel with verbal communication as a critical symbolic mediator in social interaction (Li & Jiang, 2022). NVC is achieved through facial expressions and body movements, either individually or in combination, with the aim of expressing emotions or adding pragmatic elements to speech, enhancing the precise meaning of words (Stamatis, 2011).

People communicate constantly, even when silent, through their appearance and by using body parts as means or channels of communication. According to Klinzing and Aloisio (2014), NVC is a crucial component of successful communication. It can be understood as the sum of "appropriate expressions" (which are often non-verbal) that participants in an interaction use to fully convey their thoughts, intentions, and feelings. The success of overall communication is directly linked both to the sender's ability to use these appropriate (non-verbal) expressions and to the receiver's ability to decode them accurately.

We often overlook the fact that our communication is not limited to the words we utter but also extends to our body language, even in the absence of speech. Body language, in fact, is more difficult to control than our verbal expression and often reveals our true thoughts and feelings, whether we realize it or not. Words alone are not enough to fully convey the meaning we intend if they are not accompanied by the non-verbal cues that express our internal state (Khuman, 2017; Li & Jiang, 2022). Research data support that NVC, through the expression of body signals, constitutes a very significant part, exceeding 70%, of human's total communicative ability (Bambaeeroo & Shokrpour, 2017; Stamatis, 2011). In the educational context, this ratio underscores the critical importance of NVC for effective teaching and learning (Bambaeeroo & Shokrpour, 2017).

### 2.2. Non-Verbal Communication in the Educational Context

Educational practice is predominantly communicative, with pedagogical interactions forming the core of the didactic communicative process (Stamatis & Kostoula, 2021). Although NVC is often considered the primary means of interaction in the classroom, it emerges as an equally, if not more, powerful factor influencing the dynamic of the educational process (Bambaeeroo & Shokrpour, 2017; Khuman, 2024). NVC, through its various forms, shapes the perceptions, attitudes, and behaviors of both teachers and students, playing an undeniable role in the success of teaching and learning (Butt & Shafiq, 2013; Keelson et al., 2024).

A significant dimension of NVC in this context is nonverbal immediacy, which refers to teacher behaviors that reduce the psychological distance from students (e.g., smiling, eye contact, leaning forward, relaxed posture) and promote pedagogical relationships (Stamatis & Kostoula, 2021). This immediacy acts as a strong learning motivator and makes the learning process more effective (Keelson et al., 2024).

In this context, NVC manifests in various ways, each carrying its own meaning. For example, a nod can indicate agreement, a frown dissatisfaction, and a warm smile friendliness. Particularly in education, a teacher's posture can communicate confidence and authority, while their gestures can contribute to illustrating and emphasizing key points of the lesson (Khuman, 2024). Facial expressions, gestures, and eye contact are direct, instantaneous non-verbal cues that play a significant role in information exchange in the classroom (Li & Jiang, 2022; Saleem et al., 2022).

Eye contact, both from the teacher to the students and vice versa, signifies engagement and attention (Li & Jiang, 2022; Stamatis & Kostoula, 2021). Even silence, as a form of NVC, can indicate contemplation, disapproval, or the need for reflection. Positive non-verbal cues from a teacher, such as a smile and steady eye contact, can create a more supportive and engaging learning environment. Conversely, negative non-verbal signals, such as crossed arms or avoidance of eye contact, may indicate indifference or disapproval (Khuman, 2024).

### 2.3. Non-Verbal Communication in the Greek Educational Context

The role and significance of NVC in the school context have been the subject of research in Greece. Earlier studies (Stamatis, 2011, 2012) highlight the pedagogical value of NVC both as a tool for supporting and improving classroom interactions, and as a means of enhancing teaching and learning. A recent study (Chatzigeorgiou, 2023) examines how specific non-verbal behaviors of teachers affect the classroom climate and the learning process, indicating that teachers perceive the influence of NVC. Additionally, a case study in a Greek Lyceum (Kostoula, 2024) focused on the non-verbal immediacy of secondary education teachers, confirming its positive impact on the teaching and learning process in that specific context. This research highlighted how the cultivation of warm interpersonal relationships through communication enhances teaching effectiveness.

Further exploring the uses of NVC by Greek teachers, research data reveal diverse forms and adaptations depending on the educational context and student needs. Teachers often use specific NVC elements such as hand movements, voice modulation, pauses, facial expressions, head movements, body posture, and spatial distance from students (Chatzigeorgiou, 2023). In compulsory education classes, similar non-verbal interventions (e.g., tone of voice, body language, positive nod, smile, raised eyebrow) are used to encourage student participation and communication (Passa & Kougiourouki, 2024). The strategic use of gestures and purposeful eye contact is observed to contribute to a dynamic and engaging learning environment (Kostoula, 2024). The above variety of uses underscores the flexibility and adaptability of NVC in the Greek educational context.

Despite the importance and diverse uses of NVC, teachers also face certain challenges in its application. Chatzigeorgiou (2023) points out that since teachers cannot fully control their body language, greater self-awareness and control could lead to a better learning climate, indicating a challenge in the conscious and effective application of NVC. Kazantoni (2022) states that despite teachers' efforts, the diverse cultural backgrounds of students can lead to misinterpretations of non-verbal signals, highlighting a significant challenge in intercultural communication. Finally, studies reveal significant variations in postures, expressions, gestures, movements, and eye contact across different cultural contexts, making careful consideration by teachers essential (Papadopoulos, 2024).

The investigation so far into the effective integration of NVC in teaching brings to light important issues and needs. According to Gortsa (2019), understanding non-verbal signals can significantly contribute to the development of a positive emotional climate and effective communication between teachers and foreign students. However, the need for enhanced training for teachers on NVC issues and the integration of relevant concepts into their initial education is emphasized (Kostoula, 2024). Special emphasis is also placed on the need for more studies focusing on the understanding and practical application of NVC in the Greek educational environment, as well as its influence on interaction and teaching effectiveness (Stamatis, 2012; Stamatis & Kostoula, 2021).

Overall, the studies mentioned outline the growing recognition of the importance of NVC in the Greek educational context. However, while teachers seem to use various non-verbal behaviors and perceive their influence, they encounter difficulties related to full control, interpretation in intercultural environments, and the appropriate use of specific forms of NVC, such as touch. Therefore, the need for continuous research, systematic training, and the integration of NVC principles into teachers' initial education is emphasized, in order to fully utilize its potential for improving teaching and the learning experience of all students.

### 2.4. Forms of Non-Verbal Communication in the Classroom

NVC within the school context includes a wide range of behaviors used by teachers and perceived by students. One of the most frequently cited categories in the literature concerns body movements. This category includes gestures, which can help explain concepts and facilitate classroom interaction (Chatzigeorgiou, 2023). Facial expressions are also a significant form of NVC, as they convey emotions, expectations, and reactions (Bunglowala & Bunglowala, 2015; Li & Jiang, 2022). Eye contact is another important element of body language, contributing to building a connection between teachers and students and effective classroom management (Li & Jiang, 2022; Saleem et al., 2022). Furthermore, body posture and head movements can influence the classroom climate and the learning process (Chatzigeorgiou, 2023). All these movements appear to function as indicators of non-verbal immediacy (Stamatis & Kostoula, 2021).

Another important form of NVC is paralanguage, which refers to the way words are spoken and includes elements such as tone of voice, its variation, speech rate, pauses or silences (Chatzigeorgiou, 2023), intensity, pitch, timbre, and interjections (Itzchakov et al. 2018; Khuman, 2024). These elements greatly influence classroom communication. For example, a teacher can use their tone of voice to express enthusiasm, emphasize important points, or maintain order. Pauses and silences can be used to provide emphasis, encourage thought, or create anticipation (Bambaeeroo & Shokrpour, 2017; Naz et al., 2023).

Space and distance are two more dimensions of NVC that exert significant influence on relationships between teachers and students, as well as on classroom dynamics. The arrangement of desks, for instance, can affect how students interact with the teacher and with each other. Traditional rows of desks seem to discourage two-way communication, while circular or grouped arrangements can improve cooperation and interaction among students (Chatzigeorgiou, 2023). Additionally, the teacher's position and movement within the classroom space appear to affect student attention and participation (Keelson et al., 2024; Šerić, 2020). Teacher mobility and approaching different student groups can create a sense of closeness and enhance communication (Keelson et al., 2024; Stamatis & Kostoula, 2021), while a static position may indicate detachment or lack of interest.

Beyond general space management, the interpretation of the spatial distance maintained by the teacher from students is of particular importance, as it can positively or negatively affect their communication (Chatzigeorgiou, 2023). For example, a small distance can create a sense of closeness and familiarity, enhancing communication and connection between teacher and student. However, excessive proximity might be perceived as an invasion of personal space and cause discomfort. Conversely, a large distance can indicate detachment or lack of interest. It is important to note that cultural differences can affect the interpretation of spatial distance, as different cultures imply different perceptions of personal space and appropriate distance in communication (Hans & Hans, 2015).

Haptic communication (touch) is a specific form of NVC that has been examined in the school context, primarily in preschool and early school age. The pedagogical use of touch can contribute to supporting students and improving classroom interactions, as it entails multiple benefits, such as providing encouragement, expressing care, guidance, and strengthening the relationship between teacher and student (Johansson et al., 2020; Stamatis, 2011). However, it is crucial to emphasize that the incorrect use of touch can have negative consequences and create problems. Teachers need to be aware of the boundaries and best practices regarding haptic communication (El Hakim & Farsani, 2024). Furthermore, cultural differences affect the interpretation and acceptance of touch. What is considered acceptable in one culture may be inappropriate in another (Hans & Hans, 2015). Understanding these cultural differences is essential for the effective use of touch in the educational process, as when touch is used judiciously and sensitively, it can positively contribute to the social and emotional development of students, enhancing their sense of security and trust.

In conclusion, the forms of NVC in education are numerous and interconnected, significantly influencing pedagogical aspects such as communication, learning, and classroom climate (Butt & Shafiq, 2013; Khuman, 2024; Stamatis & Kostoula, 2021). The effective recognition and use of these forms by teachers can lead to better educational outcomes. A summary table presenting the positive and negative influences exerted by the various forms of NVC used by teachers follows.

**Table 1.** Non-Verbal Communication Elements of Teachers

| Elements of Non-Verbal Communication of Teachers | Positive Influences | Negative Influences |
|---|---|---|
| Eye Contact | Eye contact with the interlocutor | Prolonged, little, or no eye contact |
| Facial Expressions | Spontaneous, natural expressions combined with eye contact | Hypocritical (Fake) expressions |
| Body Posture | Upright, relaxed, calm with gradual changes | Hunching, stiff, with many sudden changes |
| Head Movements | Slight upward tilt, stillness, combined with body movements | Turning sideways (Submission), lowering (Negative emotions, aggression) |
| Hand Movements/Gestures | Practical: writing on the board, calm/relaxed movements. Symbolic: saving time and space with pauses and silence. | Crossed arms, clenched fists, nervous or pointing movements. Inappropriate gestures (Racist, offensive, etc.) |
| Leg Movements | Moving among students, relaxed and open posture | Crossing and tapping feet, nervous (Continuous or fragmented) movements |
| Silence | Methodical use (restoring quiet, de-escalation) | Very frequent use leads to disruption of communication situations, disorganization of roles, awkward moments |
| Pauses | Methodical use for clarification, completion, or expression of meaning and emotions | Many or no pauses |
| Paralanguage Elements (Voice) | Calm rhythm/speed, tone adjustment, variations for emphasis | Avoiding interjections (e.g., umm, ahh…), exaggerations, consistent voice for long periods |
| Physical Contact | Touches in specific areas (e.g., back) with prior familiarity | Frequent, intense, or violent touches, to specific individuals |
| Space & Distance | Semicircular arrangement and/or grouping of desks, movement to facilitate dialogue | Frontal orientation (teacher-centered approach), violation of student's "intimate zone", moving behind the interlocutor |

## 3. Study Aims and Research Questions

Based on the above literature review, the need for further investigation of NVC in the Greek school context arose. An empirical study was designed to investigate how important Greek teachers consider NVC in their teaching, how they use it in the classroom, what their readiness is, and what challenges they face in its application. Furthermore, the study explored how teachers evaluate the effectiveness of NVC and what needs or proposals they articulate for its further integration into the educational process. To investigate the above aspects/dimensions of NVC, the following research questions were formulated:

1. How important do teachers consider NVC in teaching?
2. How do teachers use NVC in their classroom?
3. What is the readiness and what are the challenges for teachers in applying NVC?
4. How do teachers evaluate the effectiveness of NVC in the classroom and what needs/proposals do they articulate for its integration into teaching?

## 4. Materials and Methods

To investigate the above questions, a questionnaire with 23 questions (19 closed-ended and 4 open-ended) was designed. The questionnaire was structured into five thematic sections, covering: A) Demographic data of the participants, B) Importance attributed by teachers to NVC, C) Use of NVC in the classroom, D) Readiness and difficulties/challenges in the application of NVC, and E) Evaluation of NVC effectiveness, its contribution to the classroom climate, needs, and proposals for its integration into teaching.

Before the start of the main survey, a pilot test of the questionnaire was conducted. For this purpose, a convenience sample of 20 teachers was selected, who completed the questionnaire to check the clarity of the questions, the understanding of the instructions, and the estimated completion time. Based on their comments and answers, the necessary corrections/modifications were made to the questionnaire to ensure the validity and reliability of the measurement instrument in its final form.

For the collection of the main research sample, the snowball sampling method was followed. According to the aggregated demographic and professional characteristics of the 136 teachers who participated in the survey (Table 2), 74.30% (N=101) of the sample consisted of women and 25.70% (N=35) consisted of men. A significant percentage of teachers belonged to the age groups of 41 to 50 years old (N=58, 42.60%). Regarding teaching experience, the largest percentage concerned 16+ years (N=80, 58.80%). Secondary education teachers participated in a larger percentage (N=85, 62.50%), while primary education teachers constituted 37.5% (N=51) of the participants. The findings regarding teachers' studies showed that the majority had completed a postgraduate degree (N=81, 59.60%). Data collection took place during the period: January 2025 - February 2025.

For the processing and analysis of the quantitative data collected through the closed questions of the questionnaire, the statistical package SPSS 22 was used. Initially, descriptive statistics were calculated to capture the characteristics of the sample and the answers to the main variables of the study. This included the calculation of frequencies (N) and percentages (%) for categorical variables (demographic data, multiple-choice answers), as well as means (M) and standard deviations (SD) for variables measured on a Likert scale.

Subsequently, to investigate differences between groups, inferential statistical tests (t-test for independent samples) were applied to compare the mean responses between male and female teachers. For the comparison of means between groups defined by age, teaching experience, education level, and study level, One-Way ANOVA was applied.

To investigate the relationships between NVC-related variables (importance, use, readiness, effectiveness), Pearson's r correlation coefficients were calculated for linear relationship testing and Spearman's rho for non-parametric testing. In addition, simple linear regression analyses were performed to examine the predictive ability of demographic variables against the various dimensions of NVC. For all inferential tests, the level of statistical significance was set at $\alpha=0.05$.

## 5. Results

According to the aggregated demographic and professional characteristics of the teachers who participated in the survey, 74.30% (N=101) of the sample consisted of women and 25.70% (N=35) consisted of men. A significant percentage of teachers belonged to the age groups of 41 to 50 years old (N=58, 42.60%). Regarding teaching experience, the largest percentage concerned 16+ years (N=80, 58.80%). Secondary education teachers participated in a larger percentage (N=85, 62.50%), while the findings regarding teachers' studies showed that the majority had completed a postgraduate degree (N=81, 59.60%).

**Table 2.** Demographic and professional characteristics of the teachers in the research sample (N=136).

| Demographic Characteristics | Category | Frequency (N) | Percentage (%) |
|---|---|---|---|
| Sex | Female | 101 | 74.30% |
| | Male | 35 | 25.70% |
| Age | 20-30 | 6 | 4.40% |
| | 31-40 | 22 | 16.20% |
| | 41-50 | 58 | 42.60% |
| | 51+ | 50 | 36.80% |
| Teaching Experience | 1-5 years | 21 | 15.40% |
| | 6-10 years | 13 | 9.60% |
| | 11-15 years | 22 | 16.20% |
| | 16+ years | 80 | 58.80% |
| Education Level | Primary | 51 | 37.50% |
| | Secontary | 85 | 62.50% |
| Higher Level of Education | 1st Degree | 45 | 33.10% |
| | 2nd Degree | 6 | 4.40% |
| | Postgraduate degree | 81 | 59.60% |
| | Doctorate | 4 | 2.90% |

The findings demonstrate a strong consensus among teachers regarding the high importance of NVC in teaching practice, as the overwhelming majority of participants consider NVC either "Very important" (60.3%) or "Important" (36.0%), (M=1.45, SD=0.618). The investigation of possible differentiations based on demographic characteristics (t-test, ANOVA, linear regression) did not reveal statistically significant effects on the perceived importance of NVC. These findings suggest that the high evaluation of NVC's importance is pervasive throughout the sample, regardless of the demographic factors examined.

Correlation analysis reinforces the importance attributed to NVC, as this perception is positively and statistically significantly linked to its frequency of use (r=0.250, p=0.003), the belief that it positively affects comprehension of the material (r=0.239, p=0.005), its use for behavior management (r=0.265, p=0.002), self-assessed readiness (r=0.175, p=0.041), and the belief that NVC should be included in teacher training (r=0.205, p=0.017). The corresponding non-parametric tests (Spearman's rho) confirmed most of these positive correlations at similar significance levels (p<0.01), with the exception of the correlation with readiness which was not statistically significant (rho=0.157, p=0.068).

**Table 3**. Pearson's r correlations between variables.

| | | Frequency of use NVC | Effect of NVC in comprehension of the material | Use NVC for behavior management | Readiness in use of NVC | Include NVC in teacher training |
|---|---|---|---|---|---|---|
| Importance of NVC in teaching | r Pearson | 0.250 | 0.239 | 0.265 | 0.175 | 0.205 |
| | Sig. | 0.003 | 0.005 | 0.002 | 0.041 | 0.017 |
| Frequency of use NVC | r Pearson | | 0.528 | 0.642 | 0.227 | 0.117 |
| | Sig. | | 0.000 | 0.000 | 0.008 | 0.040 |
| Effect of NVC in comprehension of the material | r Pearson | | | 0.529 | 0.202 | 0.212 |
| | Sig. | | | 0.000 | 0.019 | 0.013 |
| Use NVC for behavior management | r Pearson | | | | 0.263 | 0.160 |
| | Sig. | | | | 0.002 | 0.063 |

Regarding the specific forms of NVC considered most important, the analysis of multiple responses indicates that facial expression, eye contact, and tone of voice are widely recognized as crucial, often in combination with body posture and gestures. Finally, concerning the open-ended question about the form of NVC considered most important in teaching, the responses, although few (N=31), suggest that some teachers consider positive emotional expression (smiling), management of physical distance and contact, appearance, and the use of visual aids as part of broader NVC to be important elements.

Participants report a high frequency of NVC use in the classroom. The mean for general frequency of use is 1.74 (SD=0.772), with 89.7% stating that they use it "Always" (41.2%) or "Often" (48.5%).
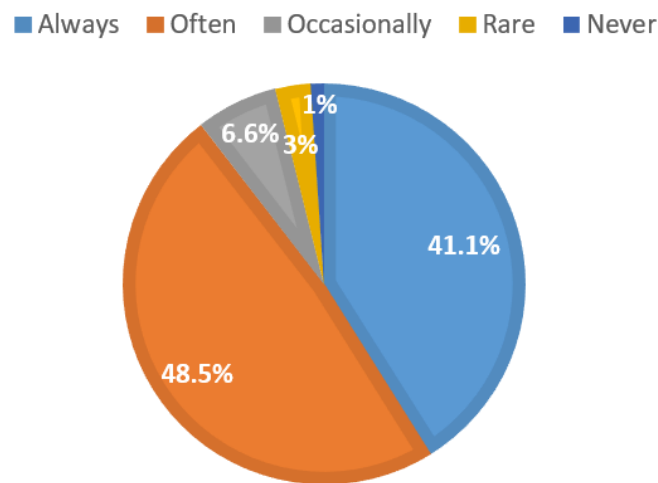
**Figure 1**. Frequency of NVC use in teaching.

Similarly, NVC appears to be a frequent tool for managing student behavior (M=1.90, SD=0.692), with 86.1% stating that they use it "Always" (26.5%) or "Often" (59.6%) for this purpose.
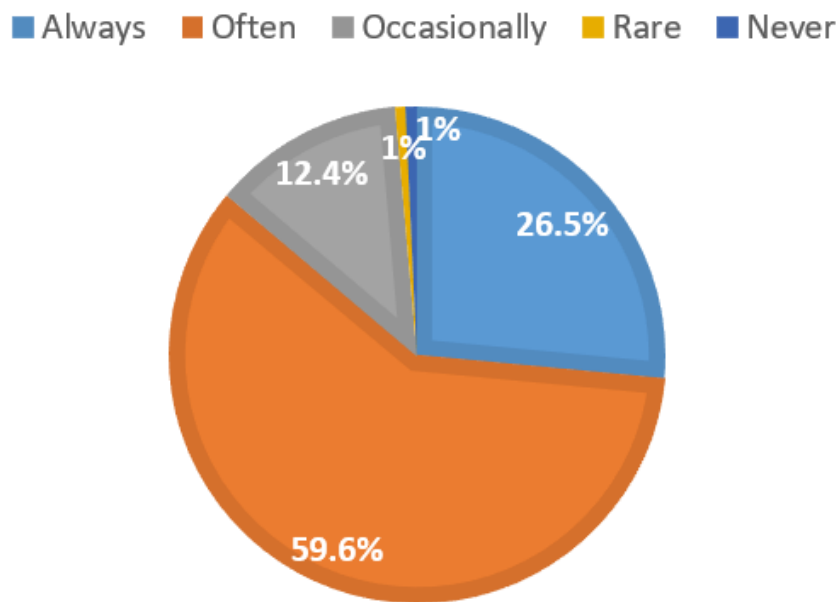


**Figure 2.** Frequency of NVC use in student behavior management in the classroom.

Notably, there is also a strong positive correlation between the general frequency of NVC use and its use for behavior management (r=0.642, p<0.001; rho=0.539, p<0.001). Furthermore, the frequency of use (both general and for behavior management) is positively correlated with the perception of NVC's positive effect on the teacher-student relationship, comprehension of material, and teacher readiness.

Regarding the forms of NVC used most frequently, there is a correspondence with those considered important. Facial expression, eye contact, tone of voice, gestures, and body posture are frequently mentioned in combination with the elements teachers use most. As for the question identifying the NVC element most frequently used in the classroom, the practices reported (N=24) also largely align with the forms considered important in teaching, with an emphasis on smiling, space/movement management, appearance, and the use of visual aids.

Despite the recognition of its importance and its frequent use, teachers' self-assessed readiness for applying NVC appears moderate (M=2.65, SD=0.857), with 43.4% rating it "Moderate" and 37.5% "Good".

The main challenge is the lack of education and training, as 86.0% stated that they had not received relevant training. This is also confirmed by the analysis of difficulties, where "Lack of training" was reported (alone or in combination) by 42.6% of participants, followed by "Difficulty in application" (29.4%), "Lack of time" (23.5%), and "Lack of knowledge" (22.8%).
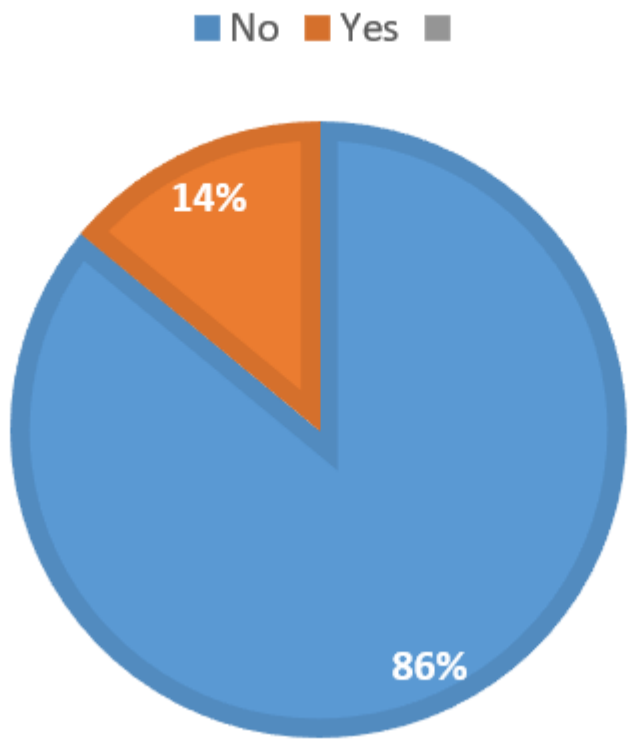
**Figure 3.** Training or education in the use of NVC in education.

The importance of training is underlined by the strong, positive, and statistically significant correlation between receiving education and self-assessed readiness (r=0.405, p<0.001; rho=0.411, p<0.001). Comparative analyses and regressions showed:

- Gender: Readiness showed marginal significance in the t-test (p=0.055) and in linear regression (Beta=0.165, p=0.055), with men tending to report slightly higher readiness.
- Studies: ANOVA showed a significant difference in receiving training (p=0.029), but linear regression did not confirm studies as a significant linear predictive factor (Beta=-0.106, p=0.219).

Regarding the type of difficulty teachers face in using NVC in the classroom, beyond the lack of training and time, they identify difficulties related to student characteristics (heterogeneity, comprehension, indifference), classroom conditions (size, space), and their own personal NVC management (emotional control, balance). It is worth noting that a small number (N=5) state that they face no difficulties.

Teachers evaluate the effectiveness of NVC very positively, considering that it "Significantly improves" the teacher-student relationship (80.9%, M=1.32) and comprehension of the material (65.4%, M=1.46), while it "Positively affects" the classroom climate (84.6%, M=1.18).
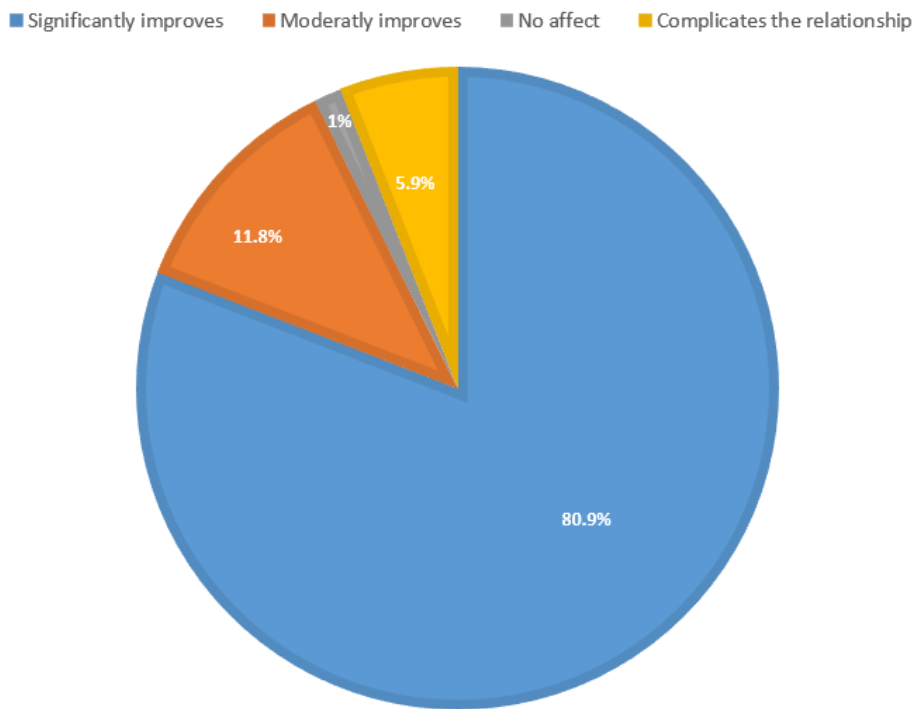
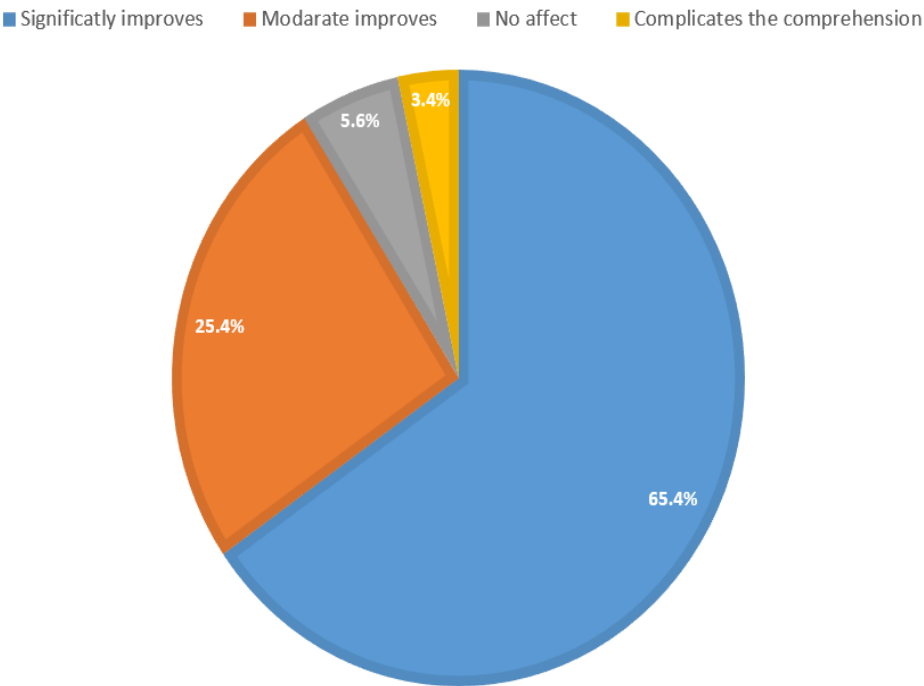**Figure 4.** Ways NVC influences the relationship between teacher and student.

**Figure 5.** Ways NVC influences the relationship in students' comprehension of material.
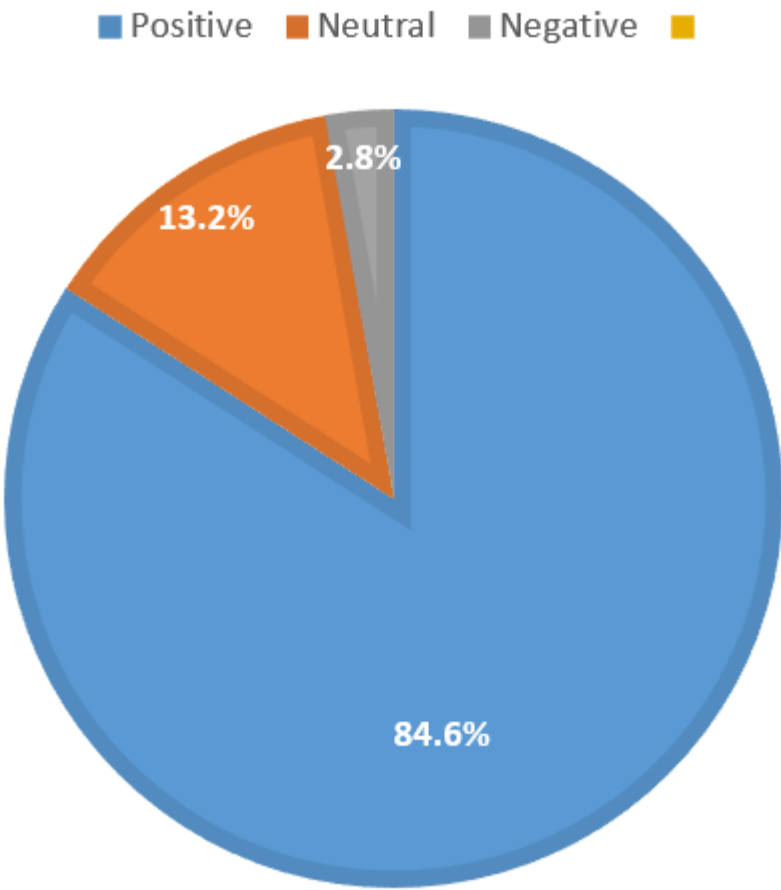


**Figure 6.** Ways NVC influences classroom climate.

79.4% observe differences in effectiveness depending on the students' age (M=1.31). The recognition of NVC's value translates into a clear need for its integration into teacher education, as 86.8% believe it should be a fundamental part of training (M=1.24). However, only 12.5% state that they have specific proposals for its integration (M=1.87).

Comparative analyses and regressions showed limited demographic differentiations along two axes:

- Gender: Marginal significance was observed in the observation of effectiveness differences by student age (t-test p=0.080/0.029, regression Beta=-0.151, p=0.080), with women tending to observe them more frequently. Gender was not a significant predictive factor for other evaluation or needs/proposals variables in regression analyses (p > 0.10).
- Studies: ANOVA showed a significant difference in the formulation of proposals (p=0.020), but linear regression did not confirm it as a significant linear relationship (Beta=-0.080, p=0.353). Studies did not significantly predict any other evaluation or needs variable in regression analyses (p > 0.10).

Perceptions of NVC effectiveness (in relationship, comprehension, climate) are positively correlated with each other, as well as with perceived importance and frequency of use. The positive correlation between the belief in the need for NVC training and the observation of differences in its effectiveness by student age (r=0.240, p=0.005; rho=0.238, p=0.005) is a finding that warrants attention.

Regarding teachers' proposals for integrating NVC into educational practice, despite the fact that only a small percentage of teachers (12.5%) stated they had specific proposals, the 21 qualitative responses provided offer useful directions along four axes:

- Teacher Training/Education: There is a strong and recurring emphasis (9 mentions) on the need for seminars and teacher training, with particular mention of experiential learning methods and information on the correct use of NVC, recognizing also the potential negative consequences of its uncontrolled use.
- Integration into Curriculum & Teaching to Students: It is proposed that NVC be included in curricula, used through activities such as theatrical play, music and movement, and pantomime (especially in literature classes), and that non-verbal communication strategies be directly taught to students themselves (e.g., through role-playing games).
- Specific Techniques & Protocols: Ideas are formulated for establishing specific non-verbal signals in the classroom (e.g., raising a hand for silence), using NVC in special circumstances (e.g., during exams to prevent distraction), and learning behavior protocols.
- Rationale & Special Contexts: Several responses emphasize the importance of NVC for creating a positive climate, providing motivation, and crisis management. Special mention is made of the importance of NVC for EPAL (Vocational Lyceum) students, as an asset for their professional prospects and interaction in the workplace.

## 6. Discussion

The results of the present study are in agreement with the international and Greek literature regarding the high importance attributed to NVC. The teachers in the sample largely recognized its importance, confirming previous studies that emphasize the crucial and vital role of teachers' non-verbal behavior in the classroom (Ghafar & Ali, 2023) and its contribution to the effectiveness of teaching and learning (Akter et al., 2024). The positive evaluation of NVC's effectiveness by the participants, especially concerning the improvement of the teacher-student relationship, comprehension, and classroom climate, also aligns with the conclusions of relevant research (Akter et al., 2024; Ghafar & Ali, 2023; Kucuk, 2023). Specifically, teachers' immediate behaviors can inspire students to be more motivated, attentive, and engaged (Liu, 2021), while non-verbal support is positively correlated with student motivation (Megawati & Hartono, 2020). It has also been shown that teachers who use more positive body language are considered more successful by their students (Kucuk, 2023).

The frequent use of various forms of NVC (such as facial expressions, eye contact, tone of voice, gestures, body posture) reported by teachers, both for teaching and behavior management (Megawati & Hartono, 2020), is consistent with the multidimensional nature of NVC described in the literature (Ghafar & Ali, 2023; Kucuk, 2023; Liu, 2021). This suggests that teachers, despite the lack of training, utilize various non-verbal channels in practice.

The most interesting finding is the gap between the recognized value/frequent use of NVC and the lack of formal training/moderate readiness. The fact that 86% of teachers stated that they had not received any relevant training, a finding consistent with observations in the literature regarding the neglect of NVC in teacher education (Abdulrahman et al., 2022; Chatzigeorgiou, 2023), is particularly revealing. It is noteworthy that the teachers who participated in the study expressed a willingness to learn more about body language. This lack appears to be directly linked to the moderate self-assessed readiness and the reported difficulties, such as lack of knowledge, difficulty in application, and limited time, as well as more qualitative reports of interpretation or management difficulties in complex environments, such as intercultural ones (Gortsa, 2019; Chatzigeorgiou, 2023). This suggests that teachers' use of NVC is largely empirical and intuitive, possibly lacking the conscious goal-setting and strategic utilization that systematic training could offer.

The limited impact of demographic factors, as confirmed by regression analyses, reinforces the view that the need for NVC training is horizontal and permeates the entire teaching staff in Greece, as also supported by previous Greek studies (Stamatis, 2012; Stamatis & Kostoula, 2021).

## 7. Conclusions

The main conclusions of the present research work are summarized as follows. The Greek teachers in the sample universally recognize the high importance and effectiveness of NVC in teaching. NVC is frequently used in the classroom, mainly for behavior management and enhancing teaching; however, its use appears to be based more on intuition than on scientific knowledge/training. A large gap is identified between the perceived value of NVC and the almost universal lack (86%) of teacher training. This lack of training is reflected in teachers' moderate self-assessed readiness and the application difficulties they report (lack of knowledge, difficulty adapting, lack of time). The influence of demographic factors (gender, age, experience, studies, education level) on teachers' perceptions and practices regarding NVC was deemed limited.

## 8. Limitations

Snowball sampling limits the generalizability of the conclusions, the exclusive use of self-report questionnaires carries a risk of bias, and the absence of investigation through observation limits the multidimensional perspective. Furthermore, the non-investigation of students' views hinders in-depth qualitative investigation/derivation of causal conclusions.

## 9. Future Research Directions

The findings highlight the imperative need for the integration of NVC into initial and continuing teacher education, with an emphasis on experiential methods/practical training, as stated by the participants themselves. The development of specialized educational material and the cultivation of a reflective culture in schools regarding NVC are proposed. Future research highlights the potential to use combined methods, including observation and data from students, examining the relationship between NVC and learning outcomes, and evaluating interventions through longitudinal studies.

# References

Abdulrahman, S. A., Bingol, M. A., & Kara, S. (2022). Body language in education and effective recommendations to pre-service teachers in classroom management. *International Journal of Social Sciences & Educational Studies*, *9*(1), 298–307. https://doi.org/10.23918/ijsses.v9i1p298

Akter, F., Rashid, F., & Tasnim, N. (2024). Reading the room: Understanding and enhancing classroom interaction with nonverbal communication. *International Journal of Scientific and Management Research*, *7*(11), 155–162. https://doi.org/10.37502/IJSMR.2024.71113

Bambaeeroo, F., & Shokrpour, N. (2017). The impact of the teachers' non-verbal communication on success in teaching. *Journal of Advances in Medical Education & Professionalism*, *5*(2), 51–59.

Bunglowala, A., & Bunglowala, A. (2015). Nonverbal communication: An integral part of teaching learning process. *International Journal of Research in Advent Technology*, 371–375.

Butt, M. N., & Shafiq, M. (2013). Significance of non-verbal communication in the teaching-learning process. *FWU Journal of Social Sciences*, *7*(1), 27–32.

El Hakim, S., & Farsani, D. (2024). From contact to connection: A comprehensive examination of affective touch in educational settings. *Frontiers in Psychology*, *15*, 1230796. https://doi.org/10.3389/fpsyg.2024.1230796

Ghafar, Z. N., & Ali, H. M. A. H. M. (2023). Nonverbal communication in the classroom and its role in the teaching and learning from educational process. *Journal of Social Science (JoSS)*, *2*(8), 712–719.

Gortsa, M. X. (2019). Nonverbal behavior and communication among teachers and foreign students. *Education Sciences*, (2), 7–21. https://doi.org/10.26248/.v2019i2.589

Hans, A., & Hans, E. (2015). Kinesics, haptics and proxemics: Aspects of non-verbal communication. *IOSR Journal of Humanities and Social Science*, *20*(2), 47–52. https://doi.org/10.9790/0837-20244752

Itzchakov, G., DeMarree, K. G., Kluger, A. N., & Turjeman-Levi, Y. (2018). The listener sets the tone: High-quality listening increases attitude clarity and behavior-intention consequences. *Personality and Social Psychology Bulletin*, *44*(5), 762–778. https://doi.org/10.1177/0146167217747874

Johansson, C., Åberg, M., & Hedlin, M. (2020). Touch the children, or please don't – Preschool teachers' approach to touch. *Scandinavian Journal of Educational Research*, *65*(2), 288–301. https://doi.org/10.1080/00313831.2019.1705893

Kazakantoni, A. (2022). Communication and relationship between educator and foreign student in intercultural classroom. In *Geniu, talent, creativitate–o perspectivă socio-culturală. Volumul I. Lucrările Conferinței Științifice Internaționale. Ediția a-XIII-a* (pp. 48–54). Biblioteca Științifică a Universității de Stat Alecu Russo.

Keelson, S. A., Addo, J. O., & Dodor, A. (2024). The influence of lecturer non-verbal cues on student perceptions of teaching quality: The role of gender and age. *Cogent Education*, *11*(1), 2325788. https://doi.org/10.1080/2331186X.2024.2325788

Khuman, P. (2024). The impact of non-verbal communication in teaching: Enhancing educational effectiveness. *Global Journal of Humanities*, *4*(3), 89–95. https://doi.org/10.47968/5857

Klinzing, H., & Aloisio, B. (2014). Nonverbal competences and psycho-social dimensions: Correlational and experimental studies on the nature of their relationships and on competence-improvement based on the teaching via cooperative research approach. In H. G. Klinzing, N. Polemikos, A. Kontakos, & P. Stamatis (Eds.), *Nonverbal communication in education: Theory and practice* (pp. 219–295). Diadrasi.

Kostoula, P. (2024). Fostering connection: A case study on nonverbal immediacy in the teaching process at the secondary education level. *European International Journal of Pedagogics*, *4*(1), 33–37. https://doi.org/10.55640/eijp-04-01-08

Kucuk, T. (2023). The power of body language in education: A study of teachers' perceptions. *International Journal of Social Sciences & Educational Studies*, *10*(3), 275–289. https://doi.org/10.23918/ijsses.v10i3p275

Li, X., & Jiang, B. (2022). Nonverbal behavior as an educational symbolic mediator in class. *Sociology Study*, *12*(5), 179–184. https://doi.org/10.17265/2159-5526/2022.05.001

Liu, W. (2021). Does teacher immediacy affect students? A systematic review of the association between teacher verbal and non-verbal immediacy and student motivation. *Frontiers in Psychology*, *12*, 713978. https://doi.org/10.3389/fpsyg.2021.713978

Megawati, W., & Hartono, R. (2020). The impact of teacher' verbal and non-verbal communication on students' motivation in learning English. *English Education Journal*, *10*(4), 436–448. https://doi.org/10.15294/eej.v10i4.39157

Naz, E., Farooq, U., & Akbar, G. (2023). Use of nonverbal communication while teaching primary school students. *Journal of Development and Social Sciences*, *4*(3), 664–673. https://doi.org/10.47205/jdss.2023(4-III)62

Papadopoulos, I. (2024). Verbal and non-verbal rhetoric in translanguaging classrooms: An intercontinental study in preschool education. In I. Papadopoulos & T. Hathaway (Eds.), *Multilingual early childhood education: Modern approaches and research* (pp. 1–28). Nova Science Publishers.

Passa, E., & Kougiourouki, M. (2024). Empowering student voices: Innovative strategies to enhance English speaking skills in Greek classrooms. *Journal of Education and Human Development*, *13*(2), 8–15.

Saleem, A., Rana, S., & Bashir, D. M. (2022). Role of non-verbal communication as a supplementary tool to verbal communication in ESL classrooms: A case study. *Propel Journal of Academic Research*, *2*(2), 39–52. https://doi.org/10.55464/pjar.v2i2.39

Šerić, M. (2020). The relationship between teacher non-verbal communication and student behavior: A cross-national perspective. *Journal of Communication Inquiry*, *46*(1), 68–95. https://doi.org/10.1177/0196859920977125

Stamatis, P. J. (2011). Nonverbal communication in classroom interactions: A pedagogical perspective of touch. *Electronic Journal of Research in Educational Psychology*, *9*(3), 1427–1442. https://doi.org/10.25115/ejrep.v9i25.1625

Stamatis, P. J. (2012). The introduction of non-verbal communication in Greek education: A literature review. *Electronic Journal of Research in Educational Psychology*, *10*(3), 1463–1476. https://doi.org/10.25115/ejrep.v10i28.1541

Stamatis, P. J., & Kostoula, V. E. (2021). Nonverbal immediacy in teaching process: A case study in secondary education. *European Journal of Education and Pedagogy*, *2*(1), 20–24. https://doi.org/10.24018/ejedu.2021.2.1.25

Chatzigeorgiou, A. (2023). Non-verbal communication in teaching: Exploring the "body language" of educators. *Educational Review–The Journal of the Hellenic Educational Society*, *40*(75), 155–170.