

## **Evaluation of Relative Importance of the Nonverbal Communication Types by Students in Higher Education**

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**Abstract:** In this paper, the results of the study, which aim was evaluation of the relative importance of the nonverbal eight categories (proximity, eye contact, gestures, posture, mobility, facial expression, touch, and voice) in the effective communication during conversation. The study involved 263 students (131 female and 132 male students of the Humanistic Institute at the Wałbrzych Higher Vocational College and Physical Education Faculty at the Paweł Wołodkowiec University College in Płock. Point-Allocation Question (PAQ) technique designed by Parasuraman, Berry, and Zeithmal (1991) was used in this study. An analysis of the obtained results showed that eye contact and facial expression proved to be the most important types of the nonverbal communication for all examined students. Proximity, voice, posture, gesture, and mobility took 3, 4, 5, 6, and 7 place in the ranking of the relative importance. The least important type of nonverbal communication was touch for all students. PAQ technique proved to be very useful in the evaluation of relative importance of the nonverbal communication by the examined students.

**Keywords:** nonverbal communication, relative importance, nonverbal communication categories, PAQ technique.

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### **Introduction**

Survey of the available Polish-language literature provides many examples of studies of the nonverbal communication. One may list here the study about the nonverbal communication of the teachers in the early school education (Bonar, 1997), recognition of the students expectations related to the teacher nonverbal and verbal communication during classes (Sztejnberg & Hurek, 2003), evaluation of the teachers nonverbal directness during classes (Sztejnberg & Hurek, 2005), use of the nonverbal communication of both teachers and pupils in the early school education (Sufa, 2008).

In the English-language literature a lot attention is devoted to the nonverbal communication. For instance, within various behaviors of the human beings in the everyday conversations nonverbal visual communication was distinguished (i.e. visual contact, looking at other, nodding, smiling, moving nearer), haptic (touching others), and paralinguistic (e.g. laughing, yawning) (Fichte, Tagalakis, Judd, Wright, & Amsel, 1992). Nonverbal conduct of the married couples and strangers for designing "Human-Robot" interaction (Lee, 2007).

An importance of the nonverbal communication is emphasized for creating positive first impression. Moreover, such types of the nonverbal communication are indicated: visual contact, facial expression, proximity and gesture (Abrams, 1992), hand shake as haptic communication and an important element of the success in business (Hiemestra, 1999). Nonverbal communication takes an important place in the human communication in the organizations, interpersonal relations between the employer and employee, employees, and employees and clients. Besides the above listed nonverbal communication, an importance of the employees' walking at working place, keeping physical distance of various length, according to Hall's space zones like personal distance from 0.5 to 1.2 m) in which people hand shake, social distance (1.2 – 3 m) for interactions among acquaintances to in which communicating persons make a contact to fix some social problems or connected with activity of some organizations. Important for the communication is a proper body posture – sitting or standing – in the own working space (Kurien, 2010). It is emphasized that the employees should use diversified vocalism, e.g. nonverbal voice characteristics such as intensity, pitch, tempo, and speaking volume. It is also important to properly use the time earmarked for the conversation of employers with employees and clients, minimization of the waiting time and proper space arrangement for realization of the assigned tasks by the employees, and conferences of the organization leaders (Hunsaker & Alessandra, 1980). A subject of studies remains also nonverbal communication of the teachers with their students and its effect on students' motivation to study and obtained results (Babad, Avni-Babad, & Rosenthal, 2004; Babad, 2007, 2009; Bambeeroo & Shokrpour, 2017; Sutiyaatno, 2018; Velez & Cano, 2008).

Various tools and measuring techniques are used in the studies. Literature of this subject is very rich. Attitude scales may successfully be used in the studies (Plopa, 1987, pp. 552-566; Davies & Pardwy, 1994, pp. 87-98), estimate scales Łobocki, 2000, pp. 81-104; Wojcieszke & Baryła, 2005, pp. 31-47); semantic differentials (Sitarczyk, 1999, pp. 33-47).

Out of various measuring techniques PAQ (*Point-Allocation Question*), designed by A. Parasuraman, L.L. Berry, and V.A. Zeithmal, is well known and is used to measure quality of service to evaluate relative importance of the quality dimensions SERVQUAL. According to PAQ procedure, the clients are asked to assign to the description of each quality dimension defined scores, so that the total score is not higher than 100. Arithmetical mean of the assigned scores in the said dimension is the weight for this dimension (Parasuraman, Berry, & Zeithmal, 1991, p. 449).

Because of the wide research possibilities of PAQ instrument use, an attempt of its use for evaluating by the students relative importance of 8 nonverbal communication types observed during conversation. Conversation is the most effective way of the direct communication of people. Each interlocutor should, among other: 1) clearly, precisely, and well-founded expressed his thoughts; 2) use nonverbal signals, e.g. keep eye contact, take proper body posture, gesticulate, talk in the defined speed; 3) properly use the voice during conversation, its power, pitch and tone, articulation, sound, and sound pauses, for an effective conversation (Sztejnberg, 2002).

Several authors quote the results of study carried out by Albert Megrabyan (2001) in the range of the one-word statements. He distinguished three components important for the receiver of the statement. He also defined percent contribution of each component, and illustrated by an equation:  $A = 0.07A_{\text{verb}} + 0.38A_{\text{voice}} + 0.55A_{\text{expr}}$ . According to this equation, content of the verbal statement ( $A_{\text{verb}}$ ), being only 7% of the whole statement, indicates an attitude to the caller. Remaining 93% of the statement is based on the nonverbal communication. This part contains the way of speech, tone of the voice (38%), and facial expression (55%) (Megrabyan, 2001, p. 140).

### **Research objective**

The study aimed at evaluating by the students a relative importance of 8 nonverbal types of the communication considerable for the conversation with another person. An answer to the following question was sought-after: what type of the nonverbal communication the student treat as the most important and which are of the least importance?

### **Methodology**

The study involved 263 students of the baccalaureate studies, including 132 female (50.2%) and 131 (49.8%) female students from two colleges: the Humanistic Institute in Wałbrzych Higher Vocational College (HIHVC) and the Paweł Wołodkowiec University College in Płock, Faculty of the Physical Education (UCP).

Total 112 students of UCP participated in this study, including 12 male students aged between 19 and 37 ( $M = 23.83$  years,  $SD = 6.16$ ) and 100 female students aged between 19 and 51 years ( $M = 22.66$ ,  $SD = 6.45$ ), and 151 HIHVC students, including 120 males aged between 19 and 37 years ( $M = 21.86$ ,  $SD = 4.30$ ) and 31 females aged between 19 and 27 years ( $M = 21.42$ ,  $SD = 2.17$ ).

Diagnostic survey served as the study instrument in the form of the questionnaire designed by the first author of this paper and based on PAQ procedure. Questionnaire contained brief descriptions of eight types of the nonverbal communication (proximity, eye contact, gesture, body posture, movement, facial expression, touch, and voice). According to PAQ procedure, each respondent should divide 100 scores into these 8 types of the nonverbal communication in respect of the importance for effective communication during conversation. Moreover, each examined student should substantiate his/her choice in writing.

### **Instruction for the students with characteristics of the nonverbal communication types**

Below, there are brief descriptions of 8 types of the nonverbal communication, seen during conversation with other people.

How important is each type for your effective communication?

Divide total 100 scores to these nonverbal communication types according an importance of each to your effective communication. The most important will be this type which will be given the highest score. Remember that the sum of scores cannot exceed 100.

1. Proximity (shortest distance from the conversational interlocutor): \_\_\_\_\_ scores
2. Eye contact (maintaining frequent and prolonged eye contact with the interlocutor): \_\_\_\_\_ scores
3. Gestures (various gestures to more effective communication)

- with the interlocutor): \_\_\_\_\_ scores
4. Body posture (relaxed and open body posture during conversation): \_\_\_\_\_ scores
  5. Movement (frequent changes of the body posture during conversation): \_\_\_\_\_ scores
  6. Facial expression (frequent smiling to the interlocutor): \_\_\_\_\_ scores
  7. Touch (touching the interlocutor): \_\_\_\_\_ scores
  8. Voice (use of my resonant voice to be better audible): \_\_\_\_\_ scores

TOTAL 100 scores

### Findings

In table 1. Mean scores (M) assigned by the male and female students to each nonverbal communication type and SD are shown.

**Table 1:** Mean scores (M) assigned by the male and female students to each nonverbal communication type with the standard deviation (SD)

Type of the nonverbal communication	Male student N = 132		Female student N = 131		Total N = 263	
	M	SD	M	SD	M	SD
1. Proximity	14.73(3)	9.919	13.62 (3)	9.944	14.17 (3)	9.928
2. Eye contact	17.14 (1)	7.653	22.60 (1)	11.630	19.86 (1)	10.192
3. Gestures	11.32 (5)	7.215	9.71 (6)	5.584	10.52 (6)	6.492
4. Body posture	11.08 (6)	5.731	12.66 (4)	7.042	11.87 (5)	6.454
5. Movements	7.06 (8)	3.608	6.10 (7)	4.455	6.58 (7)	4.073
6. Facial expression	16.67 (2)	8.155	18.78 (2)	7.756	17.72 (2)	8.014
7. Touch	8.68 (7)	6.108	4.42 (8)	4.213	6.56 (8)	5.658
8. Voice	13.36 (4)	7.591	12.11 (5)	8.246	12.73 (4)	7.934
SUM	100.00		100.00		100.00	

In parentheses, besides mean value of each type of the nonverbal communication, its importance for the effective communication during conversation is shown.

To assess statistical significance of the mean scores assigned by both male and female students to each of the nonverbal communication type Student *t* test was used. This test is especially useful for comparison of the mean values. An analysis of *t* coefficient showed that the statistical significance was related to two types of the nonverbal communication: 1) eye contact ( $t = 4.5336$ ) and 2) touch ( $t = 6.6409$ ), critical value  $t_{0.01df} = \infty (= 2.576)$ . Female students assigned higher mean scores (22.60) to the “eye contact” than male students (17.4). To the touch higher mean score assigned male students (8.68) than the female students (4.42) (see tab. 1).

An analysis of the data in table 1 indicates that patterns of the nonverbal communication types because of their relative importance for the effective conversation were very similar for both male and female students. The highest score was assigned to two types “eye contact” (rank 1): and “facial expression” (rank 2). The lowest importance had for the responders “touch” (female students – rank 8, male students – rank 7), and “movement” (female students – rank 7, male students – rank 8). Difference between mean scores assigned by male and female students for these types of the nonverbal communication was statistically insignificant. On Figure 1 representative picture of the nonverbal communication types importance for all respondents is presented.

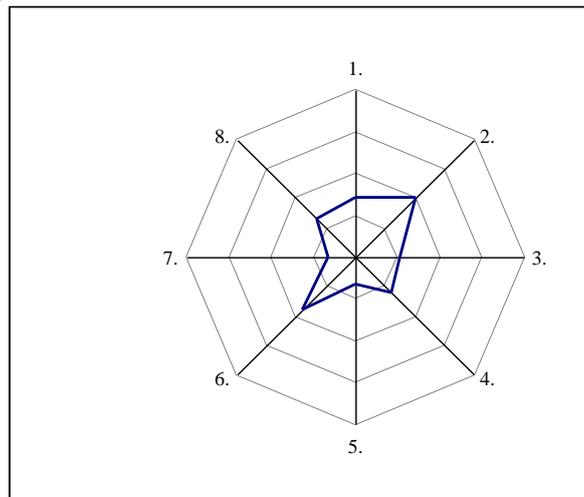


Figure 1. Representative picture of the nonverbal communication types importance for all responders (N = 263)

Analysis of the obtained results shown in Fig. 1 indicates that the second type, i.e. “eye contact”, was recognized the most important for an effective communication during conversation. Next in row, was the sixth type, i.e. “facial expression”. “Proximity”, “voice”, “body posture”, “gesture”, and “movement” occupied places 3, 4, 5, 6, and 7 in the importance rank. The lowest mean score the respondents assigned to the “touch”.

The examined students justifying their choice of the nonverbal communication types particularly distinguished some of them. Some of their answers are given below.

#### **Eye contact**

1. Eye contact and voice power are very important during conversation with another person. When I look at another person, it is easier to choose words and what I want to say.
2. Eye contact is to me the most important because the eyes show a character of the human being, while the voice shows what speaker is our interlocutor. It enables to show our emotions and feelings. Eye contact helps to assure conversation interlocutor that he is listened actively, i.e. with understanding and attention.
3. Eye contact is the most important for me because assure me at least that I am listened and understood; gesture help to evaluate what we are and what our conversation interlocutors are (secretive, open, etc.), remaining types are not so important.
4. Eye contact, because when I speak my conversational interlocutor concentrates on something other and I have feeling that he is not listening. Facial expression shows emotions. Therefore, I know what my interlocutor feels and understand what I am saying. Touch is not as important to me as without it I may well and easily communicate with another person. Moreover, the touch, especially froing touch, violates my intimacy.
5. Eye contact because I like to know that my conversational interlocutor is “present”. It is a sign of interest in the conversation.
6. Eye contact is the most important as it is indicating that I am listened. If the person escapes his eyes, it is disrespect for me.

#### **Proximity**

7. The proximity of a conversational interlocutor is very important as it is difficult to communicate with another person from the distance. Proximity, eye contact, and gesture are equally important as the conversational interlocutor may be better understandable.
8. The proximity is very important during conversation, because we know that other listen to us. Voice and eye contact are also important.
9. I like to have my conversational interlocutor near me because from the distance I would not be able to be understandable and always could be some unclear items.
10. The proximity and voice are important because my voice is weak and sometimes is barely audible. Therefore, proximity is important because a contact with the speaker and listener should be close and understandable.

11. Proximity and touch come up to me. I then know that the conversational interlocutor wants to send some information.

#### **Facial expression**

12. The highest score I assigned to “facial expression”, because it may show a lot during conversation. Eye contact is a subsequent important nonverbal communication during conversation as it shows a respect for the conversational interlocutor.
13. Frequent smiling to the conversational interlocutor and vice versa surely improve communication. Loud speech is not only better audible but also respect for the listener.
14. I think that frequent smiling, relaxed body posture and touch improve conversation effectiveness and enable conversational interlocutor to feel better.
15. I think that the smile is a base for good communication. It shows true “me”. Body posture is the second but equally important element as it shows interlocutor’s attitude to the conversation.
16. Facial expression is the most important as it would be difficult to talk with somebody, who would be gloomy and did not smile. Voice is also important but it depends on the speaker’s tone. Such types of the nonverbal communication as: proximity, body posture, and touch do not impress me.
17. Facial expression, i.e. frequent smiling do the conversational interlocutor. Then, our reaction and feelings are different, we feel positive energy, return the smile, i.e. one may say that it works both sides. Smile means happiness, joy and positive attitude to the life.

#### **Voice**

18. Voice of my interlocutor is important as too haughty tone does not induce my confidence. Eye contact occupies the second place because somebody, who flees eye is not frank. Subsequent type of the nonverbal communication is facial expression. Smiling person inspires positive emotions.
19. Very important is clear and convincing tone of the voice. Stumbling and interrupting makes the communication fable.
20. I think that the voice and eye contact exert a strong effect on the communication as it enables to have better contact with the interlocutor.
21. Voice and body posture are the most important because they concentrate my attention.

Quality analysis of the collected data confirmed that the respondents in their written justification pointed two the most important nonverbal communication types: “eye contact” and “facial expression”. In several cases these two types were pointed together. There were also comments in which the respondents combined other types of the nonverbal communication as important for the process of a communication with another person. Such a substantial diversification results from the enormous individual differences in the human beings. Not only has the language used by the participants of the communication act decided on the effective verbal communication. What we say is important but also way we talk and our facial expression.

### **Discussion**

Despite the fact that nonverbal communication is still the subject of the researches of many fields of the knowledge, no papers about evaluation of the relative importance of the nonverbal communication types were found in the available literature. In the Polish-language literature are the papers on the PAQ use for an evaluation of the relative importance of 5 dimensions of the educational service quality. PAQ procedure proved to be very helpful in establishing importance hierarchy of each dimension of the service quality SERVQUAL in the row from the most to the least important for the examined students (Sztejnbeg & Sypułkowska, 2005).

Aim of this study was an evaluation by the examined students the relative importance of 8 nonverbal communication types significant for the conversation with another person. The obtained results indicated that PAQ procedure proved to be very useful for this purpose. It was found that the “eye contact” was recognized by the examined students the most important type of the nonverbal communication in relation to the effective communication during conversation. Next important for an effective communication during conversation was “facial expression”. Places 3, 4, 5, 6, and 7 in the importance ranking were occupied by the “proximity”, “body posture”, “gesture”, and “movement”. The least important for the effective conversation proved to be “touch”. The obtained results showed also statistically significant difference in mean scores for this type of the nonverbal communication assigned by the examined students differentiated by the gender. Female students assigned lower mean score (4.41 – rank 8) to the “touch” in comparison with male students (8.68 – rank 7).

In the earlier study, which included the students of the Pedagogy Faculty at the University Opole, aimed at an acquaintance of the students expectation related to the 13 different nonverbal behaviors of the academic teachers during classes, the students decidedly did not like to be touched. It is worth mentioning that the examined students preferred teacher’s smile (“facial expression” type) but directed to the whole group and not to the individual student (Sztejnbeg & Jasiński, 2012, p. 49).

### Conclusions

1. PAQ procedure proved to be very useful in the evaluation by the examined students the relative importance of 8 nonverbal communication types significant for the effective communication during conversation.
2. The most important for all students proved to be “eye contact and “facial expression”.
3. The examined students treated the “touch” as the least important nonverbal communication for effective communication during conversation.
4. Differences between mean values of the assigned scores by the students differentiated by the gender proved to be statistically significant for the “eye contact” and “touch”. “Eye contact” during conversation proved to be more important for the female (22.60) than for male students (17.14). The “touch” during conversation was recognized by male students more important (8.68) than for females (4.42).

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