

# The Influence of Teacher's Physical Appearance and Other Nonverbal Communication Elements on Students' Perceptions of the Teachers' Role and Performance

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# **The Influence of Teachers' Physical Appearance and Other Nonverbal Communication Elements on Students' Perceptions of the Teachers' Role and Performance**

Submitted in partial fulfilment of the requirements for the M.A. in  
English Language and Literature and Croatian Language and  
Literature at the University of Rijeka

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## **Abstract**

This paper aims to show how nonverbal communication influences students' perception of teachers' role and performance. It also aims to shed light on the physical appearance, body movements, facial expressions and eye contact in the educational context, and to raise awareness of the importance of nonverbal communication. For the purpose of this paper, a study was conducted to find out the relation between nonverbal communication and education. The present study was based on two studies: one conducted by Peng Hong-li (2011) in China, and the other conducted by M. N. Butt (2011) in Pakistan. Both of these studies were conducted in an English classroom setting, while the present study was adapted to the Croatian educational and classroom setting. The results of the study indicate that nonverbal communication influences the teaching-learning process and helps students understand better the content taught.

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# 1. Introduction

From the early stages of the human evolution, people had a need to share information, feelings, ideas, thoughts and everything related to their lives. Even before language was invented, people communicated amongst themselves. They did it with motions as simple as blinking, or as complex as whole body movement. Once the language was invented it became the main means of communication. However, even though they started using verbal language, the motions they used before continued to be a part of their communication. Those motions make a nonverbal component of the communicative process. Nonverbal communication is a part of the communicative process that people are mostly unaware of. The attention is usually focused on what the speaker is saying, rather than on all of the complementary aspects of the communication that follow it.

As stated in *Advanced Communication Skills* (2010:11-12), nonverbal communication is a concept that engages various aspects, starting from the person who gives or receives the message, but also all the environmental factors, such as lighting or space which influence the way the communicative process will be understood. Be it in formal, informal, everyday communication, or even in a simple small talk nonverbal behaviour is always present. Smith (1979:631) mentions that nonverbal communication had increasingly been examined especially in the educational settings because of its significance. Starting from the professors who use it while delivering a lecture, students who interpret these nonverbal behaviours, and at the same time use their own, or simply the space in which the lecture is being held, nonverbal behaviour influences greatly the whole teaching and learning process. Unfortunately, Duke (1974:400) mentions that much of our awareness of nonverbal communication is unconscious, so professors and students are not always aware of the nonverbal behaviour they create. This, according to M. N. Butt (2011:15) can easily lead to misunderstandings.

This paper deals with the concept of nonverbal communication in the educational context, more precisely, at the university level of education. The aim of the paper is to show how certain aspects of nonverbal communication influence students' perceptions of the teachers' role and performance. This will be done by analysing the results of a questionnaire carried out for the purpose of the study. Firstly, a literature review will be given, including literature generally related to nonverbal communication, literature related to nonverbal communication in the educational context, and two studies upon which the present study was based. The main part of the paper will be dedicated to a study conducted in the Croatian language at the University of Humanities and Social Sciences in Rijeka among the students, as well as an additional survey done in the English language. Finally, the discussion of the results will follow as well as the conclusion, and suggestions for further research.

## 2. Theoretical background

### 2.1. Literature overview

People have always conveyed information and meanings from one to another, be it with signals, signs, gestures, words or any other means of communication. Communication was and still is the main means of sharing information and establishing social relationships. Nowadays, it is well known that people communicate not only by using words but with their entire body. However, to fully understand the notion of nonverbal communication and nonverbal behaviour one must first understand the notion of communication in general. In this section, we will deal with the literature generally regarding communication and nonverbal communication, as well as with certain specific aspects of our nonverbal behaviour, more precisely body movements, facial expressions, eye contact and physical appearance.

There are multiple definitions of communication. *Longman Dictionary of Contemporary English* (2009:333) defines the verb communicate as "to exchange information or conversation with other people, using words, signs, writing etc.", while communication is defined as "the process by which people exchange information or express their thoughts and feelings". The Oxford Dictionary<sup>1</sup> defines communication as "the imparting or exchanging of information by speaking, writing, or using some other medium". Even Wikipedia<sup>2</sup> defines communication as the act of conveying intended meaning from one entity or group to another through the signs and semiotic rules that are mutually understood.

In order to remove the barriers to effective communication, one needs to know that the communication process involves several parts and stages: "source, message, encoding, channel, decoding, receiver, feedback, context." (Advanced Communication Skills 2010:11-12) Also,

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<sup>1</sup> <http://www.oxforddictionaries.com/definition/english/communication>

<sup>2</sup> <https://en.wikipedia.org/wiki/Communication>

what we usually refer to as the communicative competence, comprises of grammatical, sociolinguistic, discourse and strategic competence. However, according to Brown (1980:202), as quoted in Pennycook (1985:271), in addition to these elements, the communicative competence includes also nonverbal competence, "knowledge of all the varying nonverbal semantics of the second culture and an ability both to send and receive nonverbal signals unambiguously."

In relation to the complexity of the communicative process, it is interesting to mention an American media theorist and cultural critic Neil Postman. Although not dealing precisely with communication but rather the notion of media and the metaphor, in his book *Amusing Ourselves to Death* Neil Postman made a rather interesting claim about the communication among American Indians which was achieved by using smoke signals. According to Postman (2006:7), smoke signals are too simple a means of communication to express complex ideas since its form excludes the content. Luckily, the human body and its features are complex enough in order to provide the expression of anything we would like, whether that is done in a face-to-face communication or via a certain medium. Since human features are extremely complex it is logical that humans use not only words to convey the meaning they want.

As already mentioned, in order to fully understand communication, one needs to be able to define nonverbal communication<sup>3</sup> as a part of the communicative process. *The Nonverbal Dictionary of Gestures, Signs and Body Language Cues* (Givens 2002:33) gives the following definition of nonverbal communication: "The process of sending and receiving wordless messages by means of facial expressions, gaze, gestures, postures, and tones of voice. Also included are grooming habits, body positioning in space, and consumer product design [...]. Nonverbal cues include all expressive signs, signals and cues [...] which are used to send and

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<sup>3</sup> Nonverbal communication and nonverbal behaviour have in most literature been used interchangeably, and will be used so in this paper too.



receive messages apart from manual sign language and speech." In addition to the above-mentioned elements of nonverbal communication, Calero (2005:1) adds senses of touch, taste, seeing, hearing, smells, signs, symbols, colors, and intuition as parts of the nonverbal messages we receive. Also, he defined nonverbal communication as the silent language which existed before language was invented, and which is not formally taught. A contribution to the field of nonverbal communication was also made by Charles Darwin in his work *The expression of the emotions in man and animals* where he questioned the meaning of our facial expression related to our emotions. On the basis of his work scientists came to a conclusion that "such behaviors have acquired communicative value: they provide others with external evidence of an individual's internal state." (Krauss et al., 2)

Nonverbal behaviour plays an extremely important role in communicating, some would even say more important than words themselves. Our communication is divided into verbal and nonverbal, and the percentages belonging to each one differ from one author to another. However, an agreement can still be made, that nonverbal communication exceeds verbal. According to Birdwhistell (1970:158), as quoted in Pennycook (1985:261), somewhere between 30 to 35 percent of an interaction is carried by the words. The same was stated by Charles R. Duke (1974:397), who said "only 35 per cent of the social communication among people is verbal; the remaining 65 per cent finds expression through nonverbal modes of behavior." A more detailed division of the percentage can be found with Mehrabian and Ferris (1967), as quoted in Pennycook (1985:261), who "provide the following figures for weight of importance in communication: face, 55 percent; tone, 38 percent; words, 7 percent." The same division of the percentage can be found in Henry H. Calero's book *The Power of Nonverbal Communication* (2005:5). Although these numbers should be taken with caution since various factors, such as context and culture, influence them, they still indicate the great significance of the proportion of nonverbal communication in the overall communicative process.

Another thing we need to bear in mind is verbal and nonverbal congruence, as well as the awareness we should have about our nonverbal aspect of communication. Usually, when people speak they combine the words uttered with the nonverbal elements. These two can either be congruent or incongruent, i.e. in agreement with each other or in disagreement. According to Calero (2005:89) if the verbal and nonverbal aspect are congruent the receiver of the message tends to believe or at least understand what we say, and if the two are incongruent the receiver of the message will probably doubt what we say. It is, therefore, important that people become aware of both verbal and nonverbal elements so there would be less possibility of communication difficulties. However, much of our awareness of the proper nonverbal behaviour is unconscious, i.e. "we react and do the proper thing without even noticing." (Duke, 1974:400)

Since the present study has been aimed at understanding four specific aspects of nonverbal communication (physical appearance, facial expressions, eye contact and body movement), the following sections will aim at providing a theoretical background for these specific elements of nonverbal communication. All of these elements, except physical appearance, can be understood under the term kinesics<sup>4</sup>.

One of the first researchers to use the term kinesics was Ray Birdwhistell who used the term in 1952 when he wrote *Introduction to Kinesics*. Kinesics was defined as:

"conscious and unconscious psychomuscularly-based body movements and intervening or resulting still positions, either learner or somatogenic, of visual, visual-acoustic and tactile and kinesthetic perception, which, whether isolated or combined with the linguistic and paralinguistic structures and with other somatic and objectual

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<sup>4</sup> There are many different categorizations of nonverbal communication. Barker and Collins (1970), as quoted in Smith (1979:638), presented 18 categories to describe the domain, Koch (1975), as quoted in Smith (1979:638), also proposed a large number of divisions, such as skin changes, breathing, materials, time etc. On the other hand, Cook (1971), as quoted in Smith (1979:638), divided nonverbal behaviour into static, which do not change during an interpersonal encounter and dynamic which does change.

behavioral systems, possess intended or unintended communicative value." (Poyatos, 2002:185)

In other words, kinesics is the study of body movements including facial expressions, gaze movements, gestures, postures, even subtle movements and still positions. Duke (1974:397) mentions two schools of thought which exist in the field of body movement. The first one is the psychological school according to which nonverbal communication is viewed as the expression of emotions. The second one is the communicational school, the representatives of which are concerned with behaviours of posture, touch, and movement as they relate to the social processes like group cohesion and regulation.

There are different functions of nonverbal communication in general with respect to the language<sup>5</sup>, and according to Poyatos (2002:187), our body movements and positions also serve certain functions with regards to our spoken utterance. These functions are as following:

1. The spoken utterance is replaced by our movements and positions, e.g. waving instead of saying goodbye.
2. The spoken utterance is supported by our movements and positions, e.g. nodding while saying 'He's a great person.'
3. The spoken utterance is duplicated simultaneously by our movements and positions, e.g. shaking the head while saying 'No!'.
4. The spoken utterance is repeated by our movements and positions, e.g. shaking the head after saying 'No!'.

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<sup>5</sup> Krauss et al. (4) mention interpersonal and intrapersonal functions of nonverbal behaviour. The first ones involve behaviours that convey information to others, whether intentionally or unintentionally, and the later ones involve noncommunicative purposes the behaviours serve. Patterson (1983), as quoted in Woolfolk & Galloway (1985:78), suggests five main functions for nonverbal behaviour in social interaction: providing information, regulating interactions, expressing intimacy or liking, exercising social control, facilitating service or task goals.

5. The spoken utterance is weakened by our movements and positions, e.g. saying 'The movie is all right', with a slightly condescending smile.
6. The spoken utterance is contradicted by our movements and positions, e.g. saying 'He's very nice' while frowning.
7. The spoken utterance is masked by our movements and positions, e.g. smiling while aggressively whispering to someone in public.

Alongside body movements, kinesics includes facial expression too. We often communicate our moods, attitudes, opinions, ideas, messages and particularly feelings<sup>6</sup> by solely using our face. Our facial expressions are the best-known elements of nonverbal communication and ones which, we could say, people pay most attention to. For those people who are observant and who try to consciously pay attention to the nonverbal elements of communication, our facial expressions can express more and tell more than any word we say.<sup>7</sup> That is no wonder considering the fact that we start learning how to read facial expressions as infants. According to Calero (2005:66), once babies start focusing their eyes while looking at adults they started the process of learning how to differentiate between their parents and strangers. Also, babies learn how to distinguish different expressions and sense the changes in their parents' facial expressions. This process is later on expanded to the other members of the child's family, friends, teachers and anyone else he/she meets. Facial expressions are probably one of the most essential parts of nonverbal communication, and if we pay close attention to them they can say a lot about a person's thoughts, feelings, and their attitude.

Closely related to facial expressions, and in a way, a part of it, are our eyes and the eye contact we make with other people during communication. It is not only the speaker who is in motion

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<sup>6</sup> There is an interesting quote by Paulo Coelho (*Manuscript found in Accra*): "The eyes are the mirror of the soul and reflect everything that seems to be hidden; and like a mirror, they also reflect the person looking into them." (<http://www.goodreads.com/quotes/857760-the-eyes-are-the-mirror-of-the-soul-and-reflect>)

<sup>7</sup> The so-called blank face "though expressionless, sends a strong emotional message: "Do not disturb!" [...] The blank face is a subtle sign used to keep others a polite distance away." (Givens, 2002:345)

during speaking but also the listener who mirrors the movements of the speaker. The engagement of both the listener and the speaker in the communicative act is also known as "interactional synchrony and is of particular significance, since it provides a means by which people signal their mutual attentiveness." (Pennycook, 1985:264) One of the ways to achieve this interactional synchrony is by eye contact which plays an important role in regulating interpersonal communication. However, when it comes to eye contact there is an extensive influence of culture on it, as Pennycook (1985:264) and several other authors have mentioned. According to them, in the United States of America, prolonged eye contact in the communicative act indicates readiness to yield a turn.<sup>8</sup> Also, in the Western societies if someone avoids eye contact during face-to-face communication he/she is regarded as being suspicious, while in many Eastern cultures, downcast eyes are a sign of respect. These cultural differences could lead to misinterpretation during communication if one is not aware of them.

Finally, the physical appearance, especially clothing has been considered also an important part of our nonverbal communication. If one looks up the definition of footwear in Givens (2002:109), besides it being a consumer product to protect and decorate the feet, one will find the following definition: "A highly expressive article of clothing designed to convey information about gender, status, and personality." If our shoes can convey such an amount of information to the other person we engaged in a communicative act with, just imagine what our total physical appearance can say. Clothing especially has had nonverbal significance throughout history. Calero (2005:145) mentions various examples such as Julius Caesar who wore a purple tunic when he led his soldiers into battle, so that everyone would know where their general is, or a more modern example of designers such as Versace and Jean-Paul Gautier whose clothes are so colorful and impractical that they imply wealth rather than taste. From

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<sup>8</sup> What Givens (2002:289) mentions is that while in the U.S. listeners are encouraged to gaze into speaker's eyes, in Japan listeners are taught to focus on a speaker's neck in order to avoid eye contact.

these two examples, it is visible that our clothes have different functions. To Julius Caesar clothing had a simple, practical function of being recognizable on the battlefield, to Versace and Jean-Paul Gautier clothes represent wealth and status. According to Duke (1974:403), in order to understand clothing as one aspect of nonverbal behaviour, one needs to be familiar with numerous functions clothes fulfil such as decoration, protection (physical and psychological), sexual attraction, group identification, and status.

Keeping all the above said in mind, we move on to the theoretical background of nonverbal communication in the classroom. Since the present study was conducted in the classroom context, with teacher-student communication as a basis, the notions of communication, nonverbal communication, body movements, facial expressions, eye contact and physical appearance, explained in this section, will now be further explained using literature concerning classroom nonverbal communication.

## **2.2. Nonverbal communication in the classroom**

We have already mentioned the importance of nonverbal communication, and we mentioned the distribution<sup>9</sup> of nonverbal and verbal communication in the overall communicative process. Apart from our everyday communication, the nonverbal behaviour is present especially among teachers and students during the teaching and learning process. However, according to Galloway (1968:172), it may seem that many teachers rely upon words and verbalisms to convey meaning during teaching, and they readily accept the notion that to be instructive is to be verbal and vice versa. The nonverbal communication is of great importance in the educational settings, and both teachers and students should be aware of the effect it has on communication. Even Galloway (1979:198), as quoted in Woolfolk & Brooks (1985:513),

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<sup>9</sup> "In classroom settings, it is estimated that 82% of all teachers' communications are nonverbal" (Kellogg and Lawson 2), as quoted in Allen (1999:469).

observed that "when students listen, they hear the words (hopefully) and they observe the behaviors and expressions of the teacher to obtain further information [...] There are countless questions that form in the mind." Also, Barabar and Caganaga (2015:138) mention that nonverbal communication is the inevitable part of language teaching which helps developing teaching quality and the development of teaching methods, as well as helps teachers get the students' attention easily. As most would probably agree, to communicate and to achieve communicative competence, in general, is one of the main purposes of education, and nonverbal behaviour is an essential part of the communicative act.

According to Woolfolk and Brooks (1983:105), nonverbal communication does not require intentional sending or conscious receiving. However, awareness is an important factor in nonverbal communication. Since many nonverbal behaviours are natural and spontaneous we are not usually aware of the influence we have on others, and others have on us through simple nonverbal behaviours. More specifically, Galloway (1968:173) mentions that teachers can reveal feelings to students that are not in their own best interest, and that to increase the awareness of what is usually out-of-awareness is a step in the right direction. In order to ensure the awareness of nonverbal communication, it is inevitable to do research on nonverbal communication in the educational settings, not just in general. The importance of research on nonverbal communication is mentioned in Woolfolk and Galloway (1985:77-79), who believe that the attention to nonverbal research may enrich our conceptualization of the teaching itself, by applying some of the insights gained from the nonverbal research to develop a more complete and realistic understanding of teaching. However, in addition to this they also note that even though classrooms have their own physical, social, and temporal characteristics, this does not mean that findings from other contexts, i.e. made outside the educational settings are irrelevant. In relation to this, although research made on nonverbal communication in general is relevant, Riggio and Feldman (2005:159) highlight two reasons for the necessity of research

on nonverbal communication in the educational settings. According to them, the first reason is that classrooms involve groups of varying size, interacting across greater distances than in dyadic conversations usually taking place. The second one is that in the classroom the teacher usually calls the conversational shots, unlike in everyday conversations where each participant has a more-or-less equal chance at speaking up.<sup>10</sup>

In the previous section, we said that nonverbal behaviour serves different functions with respect to language, such as replacing, supporting, duplicating the spoken word etc. In a similar way, nonverbal behaviour serves certain functions in the classroom context as well. Barabar & Caganaga (2015:139) mention the following functions:

"to decrease unnecessary teacher talking time, to arouse learners' participation, to build confidence, to decrease the fear of silence, to give clear instructions, to manage classroom efficiently, to develop listening skills, to develop students' performances in pairs and group activities, to develop intercultural competence, to avoid misunderstandings, to benefit the classroom atmosphere, for self and peer correction."

Similar to this, Woolfolk and Brooks (1985:514-515) mention that nonverbal behaviours indicate expectations and attitudes, reveal emotional states and attraction, supplement, reinforce, or regulate verbal exchanges, are persuasive and influence the performance of others. In addition to that, Bassett and Smythe (1977), as quoted in Beebe (1980:19), identified three functions of nonverbal cues in classrooms: assisting in self-presentation, aiding in the identification of rules and expectations, and playing an important role in feedback and reinforcement process.

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<sup>10</sup> Also, according to Riggio and Feldman (2005:159), turn-taking highlights one of the structural features of the classroom context that has important ramifications for researchers in nonverbal communication.



The notion of kinesics<sup>11</sup>, which includes body movement, facial expressions, and eye contact, and the notion of physical appearance have been generally explained in the previous section. In addition to that, these aspects of nonverbal behaviour will now be further explained in relation to the educational setting. Kinesics, which we previously defined as the study of body movement, posture, facial and eye behaviour has been the focus of studies both generally speaking, as well as the studies conducted in the educational settings. Beebe (1980:6) mentions in his paper several researchers and their studies which focused on the notion of kinesics. The first study was conducted by Mehrabian in 1971., and he came to the conclusion that teachers who use more gestures during teaching will foster positive student attitudes. The second one was conducted by Seals and Kaufman (1975) who also found that more active teachers elicit more positive perceptions from students than inactive teachers. And, the third one was conducted by Willett (1976) who compared the nonverbal behaviours of "effective" and "average" teachers and came to a conclusion that "effective" teachers use more motions in student-teacher interaction, when focusing student attention or when demonstrating certain concepts.<sup>12</sup> When it comes to facial expressions, smiling seems to be one of the most important features. Bayes (1970), as quoted in Smith (1979:649), in a study of behavioural cues of interpersonal warmth, found that the frequency of smiling was the single best predictor of perceived warmth.

Another feature of kinesics is eye contact, and a lot of research has been made in this aspect of nonverbal communication. The following researchers are listed in Beebe (1980:9-10):

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<sup>11</sup> Negi (2009), as quoted in Barabar & Caganaga (2015:138), besides kinesics and physical appearance mentions the following types of nonverbal communication which are used in language classrooms: proxemics, oculusics, haptics, chronemics, paralanguage/vocalics, olfactics.

<sup>12</sup> We must bear in mind that "increased stimulus variation is attention catching for older students, but possibly distracting for younger children." (Beebe, 1980:6)

- Different researchers "found that direct eye contact improves audience perceptions of a speaker."
- Breed (1971) found that when there was a lack of eye contact students formed negative attitudes towards the instructor, no matter the fact that the material presented was interesting.
- LeCompte and Rosenfeld (1971) found that when the experimenter maintained eye contact with the students while reading the instructions, he was rated as less formal and less nervous.
- Exline (1971) found that students preferred fifty percent eye contact, rather than one hundred percent or no eye contact at all.
- Breed, Christiansen, and Larson (1972) found that when there was no eye contact between the students and the teacher, the students perceived the teacher as less relaxed and less organised; they also concluded that mutual eye contact between the teacher and the student results in more attentive students.
- Caproni (1977) found that eye contact influences student participation in class.

Eye contact in the educational settings, usually, although not always, "occurs when we want to signal that the communication channel is open." (Knapp, 1971:246) For example, it is not rare that a student avoids the eye contact with the teacher, after he/she poses a question or asks for an opinion, and the student does not know the answer. The student is in a way letting the teacher know by his nonverbal behaviour that he/she does not know the answer to the posed question. Also, teachers tend to use eye contact when they want to receive feedback on how the content was received. In that case, the teachers are the ones looking for nonverbal behaviour in their students rather than vice versa. In addition to that, Knapp (1971:246) mentions that eye contact can act as a psychological manipulator of physical distance, especially in large classes where eye contact may help to psychologically reduce this distance. Without a doubt, eye contact has

a lot of influence in the student-teacher communication and is one of the most important aspects of kinesics, especially in the classroom settings.

Apart from body movements, facial expressions, and eye contact this study focused also on the influence of the physical appearance of a teacher. However, when it comes to this last aspect of nonverbal behaviour, not a lot of research was done. According to Smith (1979:651), although many experiments were done on how people perceive others based on their physical characteristics, little or no studies were done in the educational context which would relate these factors to teacher effectiveness and student achievement. Beebe (1980:18) mentions the study by Chaikin (1978), which could be applicable to the educational settings. He found that those teachers rated as more attractive were also rated as more competent and they were more likely to motivate the students than those teachers rated as unattractive. In addition to this, Beebe (1980:18) mentions research done on the teacher evaluation of students' performance based on the students' physical appearance, which "suggested that more attractive children do have an edge in receiving more positive evaluations from their teachers."

As nonverbal behaviour influences the communicative process in everyday life, so it has a profound impact in the educational setting as well. With their nonverbal behaviour teachers can affect students' perception of the teacher, and some even say that it can affect the students' outcome in class. When it comes to the influence on students's performance Woolfolk & Brooks (1983:128) state that "information on the relationship between teacher nonverbal behaviors and student performance, while quite limited, does suggest that nonverbal assertiveness or firmness might be important in effective management [...] In relation to student learning, it appears that nonverbal behaviors that encourage student involvement and participation lead to increased learning." Also, in a study conducted by Woolfolk & Woolfolk (1974:302), they found that communication of affect via verbal and nonverbal channels has a pronounced impact upon

students. In addition to that, Riggio and Feldman (2005:164) found in their meta-analysis of the teacher nonverbal immediacy literature that "teacher nonverbal immediacy is strongly related to many positive student outcomes: liking for the course and teacher, willingness to take more classes with the teacher, and students' perceptions that they have learned a lot in the class. What is not yet clear is the degree to which these positive outcomes may be translated into gains in actual student achievement."

As we have seen in various studies mentioned in this section, students evaluate their teachers, among other things, based on their nonverbal behaviour (e.g. the teacher is considered more confident if he/she maintains a fair amount of eye contact with their students). According to Woolfolk & Brooks (1985:518), this can be influenced by developmental, cultural factors, individual differences (age, sex...), and student attributions. As teachers we have (or at least should have) an important role in helping the students build their personality, and although students have a great ability to interpret teachers' nonverbal behaviour and use it in their favour, sometimes the teacher can affect the student with their nonverbal behaviour without even being aware of it. This is definitely one more reason to raise awareness of nonverbal behaviour in the educational settings. Now that we have provided theoretical background considering nonverbal behaviour in general, and in the educational settings, we move on to a more detailed analysis of the two studies which served as the background for the present study conducted.

### **2.3. Models for the present study**

The present study was based on two different studies. The first study was conducted by Peng Hong-li (2011) in China, and it aimed to find the effects of nonverbal communication on college English classroom teaching. The second study was conducted by M. N. Butt (2011) in Pakistan, and it looked into the impact of nonverbal communication on students' learning outcomes. Since

the questionnaire used in the present study was based on the questionnaires from these two studies, the following two subsections will deal with the detailed analysis of these two studies.

### **2.3.1. Effects of Non-verbal Communication on College English Classroom Teaching (Peng, 2011)**

The first study, upon which the present study was based, was the one by Peng Hong-li conducted in 2011 in China among college students. The aim of the study was to find out if nonverbal communication can affect the college English classroom teaching and to find out the college students' opinions about nonverbal communication in college English classroom teaching. In order to find out the results, the author based his study on a questionnaire (APPENDIX A). The participants were randomly chosen freshmen college students, majoring in Chemistry and Computer Science and Physics, who took the course of College English, and have already had certain language and cultural background knowledge in English. (Peng 2011:509) The data collected from the study was divided into six categories: the effects of the teacher's physical attractiveness, the effects of the teacher's use of cosmetics, the effects of the teacher's clothing, the effects of smell, the effects of furnishing and decoration and the effects of vocal characteristics on classroom teaching. These categories were then subsequently analysed.

The first category analysed (Peng 2011:510) was the effects of the teacher's physical attractiveness on classroom teaching. According to the survey, the majority of the students feel a teacher's like or dislike through nonverbal communication means. Also, during the first class, students pay more attention to all nonverbal communication means of a new teacher, especially his/her body language. This, according to the author, may give an implication for teachers on how to communicate nonverbally with the students in the first class.

The second category analysed (Peng 2011:510-511) was the effects of the teacher's use of cosmetics on classroom teaching. The author's view is that both female students and teachers should be cautious of the use of cosmetics. Female students should be cautious because they may seem as not attentive learners, and teacher's because they are not holding a gender-typed position, and students might doubt their capability, knowledge, skill, personality and even morality. According to the survey, more than half of the participants disapprove of female teachers' heavy wear of cosmetics.

The third category analysed (Peng 2011:511) was the effects of the teacher's clothing on classroom teaching. The results of the survey suggest that students expect that teachers can dress professionally in a classroom. The majority of the students think that teachers should dress professionally and properly, however, they accept that teachers wear informal clothes, such as jeans, T-shirt or sweater in the classroom. The results also show that students do not like teachers wearing suits. The author suggests that this is because suits are too formal and serious, while informal clothes create a lively teaching atmosphere and a closer, friendlier relationship between the students and the teacher.

The fourth category analysed (Peng 2011:512) was the effects of smell on classroom teaching. When it comes to the impact of smell on students' study, the survey showed that teachers' odours affect students' study. In addition to that, more than 86% of the students think that the smell of the environment has an impact on their study.

The fifth category analysed (Peng 2011:512-513) was the effects of furnishing and decoration on classroom teaching. This category was further subdivided into the effects of seating arrangement and the effects of lighting. The results of the study implied that the students do not care much about the seating arrangement when having a lecture, however when it comes to holding a discussion students believe that the seating arrangement should be either in the U-shape or in the modular shape since these seating arrangements are much more helpful for the

communication between students. Considering lighting, the survey showed the students realised the effect of lighting on their study. More than 92% of the students, will choose to sit closer to the source of lighting in order to improve their efficiency and concentration. The author suggests three guidelines that should be kept in mind when decorating a classroom: maintaining high levels of illumination, balanced brightness in all areas of the classroom and avoiding glare from direct light sources or from reflecting surfaces.

The last category analysed (Peng 2011:513-514) was the effects of vocal characteristics on classroom teaching. According to the survey, the majority of the students hope that teachers will modulate their voice in order to attract their attention. The author believes that if the teacher does not vary his/her voice, the students might get bored and lose interest in what the teacher is speaking.

This study aimed to find whether nonverbal communication does affect the students' study, as well as the students' opinions about nonverbal communication in teaching. After the analysis of the survey the author came to the following conclusions (Peng 2011:514):

1. Teachers should learn how to use nonverbal communication to impress upon their students, especially in the first class so as to create a friendly relationship between the teacher and the students.
2. Teachers should exploit nonverbal communication so as to create a lively teaching atmosphere and good studying environment.
3. Teachers should take advantage of nonverbal communication to assist and complement classroom teaching to achieve the best effect and high efficiency.

### **2.3.2. Impact of nonverbal communication on students' learning outcomes (Butt, 2011)**

The second study, which served as a basis for the present study, was conducted by M. N. Butt in 2011 in Pakistan.<sup>13</sup> The study conducted:

"looked into the impact of non-verbal communication on the learning outcomes of students of 9th and 10th classes, [...] highlighted the importance of non-verbal communication in the subject of English, [...] explored the impact of non-verbal communication on students' learning by observing teachers and students in classrooms and; finding out how this mechanism contributed to better learning outcomes of students." (Butt,2011:i)

The author also mentioned that the study was limited to the following aspects of nonverbal communication: body movements, facial expressions, eye contact, the pitch of voice, and spatial distance between teachers and students. The study was done by means of a questionnaire<sup>14</sup> (APPENDIX B) and an experiment done in the classroom setting, with the total number of 840 participants (40 teachers and 800 students<sup>15</sup>).

The author formulated four objectives for the study (Butt 2011:8):

1. To explore the perceptions of teachers and students regarding non-verbal communication as an important teaching-learning skill.
2. To make an analysis of non-verbal communication in the context of the teaching-learning process.
3. To find out how the mechanism of non-verbal communication contributed to better learning outcomes of students.

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<sup>13</sup> The study was conducted in partial fulfilment of the requirements for the degree of doctor in philosophy in education, at the Faculty of Arts, Social Sciences & Education, Sarhad University of Science and Information Technology, Peshawar, Pakistan.

<sup>14</sup> Two separate questionnaires were conducted, one for the teachers and one for the students.

<sup>15</sup> Students were of 9th and 10th classes in Peshawar, Khyber Pakhtunkhwa.



4. To make recommendations for the use of non-verbal communication strategies to improve students' learning.

Also, the author developed two hypothesis for the study (Butt 2011:9):

1. There is an impact of non-verbal communication on the learning outcomes of students in rural and urban areas.
2. There is an impact of non-verbal communication on the learning outcomes of male and female students.

After the data has been analysed the author came to the following conclusions (Butt 2011:180):

1. Facial expression is an important tool of the teaching-learning process, and could make the teaching-learning process more effective and interesting.
2. The skill of nonverbal communication could enhance the understanding of the students in the classroom and help to improve the teachers' role in promoting learning outcomes.
3. Facial expressions of teachers like anger and smile could help the students to understand the messages, which would be helpful to change their behaviour according to the learning requirement in the classroom during teaching-learning process.
4. Eye contact could play an effective role in the process of teaching and learning because this technique made the students attentive and alert in the classroom as a result of direct eye contact with the teachers.
5. Teachers could easily motivate the students with their eye contact and transfer the messages of appreciation and admiration to students.
6. Eye contact not only helps in augmenting the attention level of the students but also increases their understanding.

7. The importance of the body movements in classroom teaching was found lucid from the responses of the respondents who endorsed the importance of the body movements during the teaching-learning process.
8. Proper use of hands, shoulders, and head by a teacher developed the understanding of the story lessons taught during the study and also provided supplementary information to the students. Body movements of teachers and students made the learning environment conducive to learning.
9. The rise and fall in teachers' voice positively affected teaching-learning process in the classroom and provided additional information in the teaching of poetry.
10. Proper use of intonation and pitch of the voice by the teachers further clarified the concepts to the students.
11. Appropriate distance between teachers and students was viewed very necessary for the proper learning of the students and acceptable distance in the classroom was found very conducive to learning environment.
12. Students felt at ease and inclined towards learning activities in the classroom when teachers kept proper distance with the students.
13. Test results illustrated that non-verbal communication brought a significant difference in the learning outcomes of the students. The treatment ensured improvement in the learning and understanding of the students, which were reflected in their learning outcomes.
14. Non-verbal communication demonstrated positive change in the learning outcomes of both male and female students both in the rural and urban areas.

These conclusions will be later on further discussed in relation to the analysis of the results of the present study.

### **3. The study**

#### **3.1. Method**

The present study was based on the two studies that have just been reviewed: Peng, 2011 and Butt, 2011. Similar to the mentioned studies, the present study also put the notion of nonverbal communication in the educational setting. It looked at the impact and importance of nonverbal communication in the overall teaching and learning process. Also, it aimed to find out the influence of the teachers' physical appearance, body movement, eye contact and facial expressions on students' perception of the teaching process and the teachers' performance. In addition to that, the present study also wanted to find out whether students perceive nonverbal communication more consciously or unconsciously, as well as highlight the importance of the conscious perception of nonverbal communication, and give suggestions for further research in the field.

The present study was conducted by a means of a questionnaire (APPENDIX C). The questionnaire was formulated on the basis of the two questionnaires, one from the study conducted by Peng Hong-li (2011), and the other by M. N. Butt (2011). However, several adjustments were made, some questions were added, and some were omitted. The questionnaire was conducted in the Croatian language since not all the participants were students of English language and literature. The questionnaire was translated into the English language (APPENDIX D) for the purpose of an additional survey conducted in English.

The questionnaire consisted of three parts. In the first part of the questionnaire the participants were asked to fill in their background information: their sex, age and year of study. The second part of the questionnaire consisted of the open type questions and was not based on the above-mentioned studies. The participants were asked to define nonverbal communication and to answer shortly the three questions regarding paying conscious and unconscious attention to

nonverbal communication signs. In addition to that, the participants were asked to list the nonverbal communication signs they pay most attention to when it comes to their professors, and to estimate the percentage of paying conscious and unconscious attention to four specific nonverbal communication signs: physical appearance, facial expressions, eye contact, and body movement. The second part of the questionnaire was made to see to what extent do the students realise the concept of nonverbal communication, and to put the focus on the difference between the conscious and unconscious perception of nonverbal communication signs. Also, it was made to see the attitude of the students towards paying conscious and unconscious attention to specific nonverbal communication signs in the educational context.

The third part of the questionnaire was based on the above-mentioned studies. It consisted of one single task in which the participants used the Likert scale (strongly disagree – strongly agree) to answer the claims. There were altogether twenty-eight claims regarding the physical appearance, facial expressions, eye contact and body movements of the professors during the teaching and learning process. The first ten claims were related to the physical appearance of the professors during the teaching-learning process and were mostly based on the questionnaire from the study conducted by Peng Hong-li (2011)<sup>16</sup>, on the effects of nonverbal communication on college English classroom teaching. After the first ten claims regarding the physical appearance of the professors, there were seven claims regarding facial expressions, five claims regarding eye contact, and six claims regarding body movement. These claims were taken from the study conducted by M. N. Butt (2011), on the impact of non-verbal communication on students' learning outcomes.

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<sup>16</sup> Since the questions in the questionnaire of the mentioned study were formulated in such a way that the participants circle the answer they consider the most appropriate, for the purpose of the present study the questions were reformulated so as to correspond to the Likert scale offered.

After the questionnaire was formed, a pilot research was conducted. The purpose of the pilot research was to see approximately the time needed for the completion of the questionnaire, to see whether all the questions were formed in a clear way and whether the participants had any problems answering any of the questions formed. The pilot research was conducted at the Faculty of Humanities and Social Sciences in Rijeka, with the total of five participants. It was estimated that the amount of time needed to complete the questionnaire was ten to fifteen minutes. When the pilot research was conducted and analysed, we came to a conclusion that no problems were encountered during the pilot research, and that the questionnaire could be used for the main research without any additional changes.

The main research was also conducted at the Faculty of Humanities and Social Sciences in Rijeka, with the total of eighty-three participants. With the permission of several professors from the Department of Croatian language and literature and the Department of English language and literature, the students were introduced to the questionnaire before the commencement of their classes. Before they were given the questionnaire the students were asked to truthfully and honestly answer the questions, and it was emphasised that the questionnaire was anonymous and that the results would be used for research purposes only. The questionnaire was then distributed to the students, and they were given fifteen minutes to complete it. When the students finished with the completion of the questions, the questionnaires were collected. The results were then analysed and studied for the purpose of the research. Since the pilot research and the main research were conducted using the same questionnaire, during the analysis the results of the pilot research were added to the results of the main research.

Additional research, the same as the main research, was also done in English. The questionnaire was translated from the Croatian language and was given to ten participants whose one major was English language and literature. The purpose of this additional research was to see whether the results gained in the main research, done in the Croatian language, and this research, done

in the English language, were comparable. In other words, the research was done to see whether students think differently about certain concepts if they are presented in a different language, one that is not their mother tongue.

### **3.2. Participants**

The research could be divided into three parts: the pilot research, the main research and the research conducted in the English language. All three parts of the research were conducted at the Faculty of Humanities and Social Sciences in Rijeka, and all the participants were students of the mentioned faculty. The total number of participants in the research was eighty-eight, eighty-three of them participated in the main research, and five of them participated in the pilot research, the results of which were added to the results of the main research. From these eighty-eight participants, fifteen of them were male, and seventy-three were female.<sup>17</sup> In the research conducted in the English language, the total number of participants was ten, all of them female. All the participants engaged in the research were students aged from nineteen to twenty-five years. The participants were students of the first, second and third year of B.A. studies, and the students of the second year of M.A. studies. Since the research was conducted during the obligatory courses in the Departments of the Croatian and English Language and Literature at the Faculty, all the students had one major either in the Croatian or the English Language and Literature. Their second major was not known.

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<sup>17</sup> In the pilot research, all the participants were female.

### **3.3. Results**

The results of the research were analysed by the researcher without using any research analysis programme. During the analysis of the results, the results of the pilot research were added to the results of the main research. After the analysis of the first part of the questionnaire, i.e. the background information, the analysis of the second part, i.e. the open-ended questions, followed.

The first thing the participants had to do was to offer their definition of nonverbal communication. Most of the participants (52.273 %) defined nonverbal communication as a communication which involves different aspects of nonverbal communication. The participants mentioned the following aspects of nonverbal communication: gestures and mime, movements of the head and the body, body position, motion, head nodding, hand movement, facial expressions, eye contact (maintaining eye contact, directed eye contact), intonation, tone, speech rate, pitch of voice, situational context (environment, behaviour code), energy that the speaker emits, the use of space and touch, distance between the participants of the conversation, physical appearance, personal style, clothing, signs. A great number of the participants (27.273 %) defined nonverbal communication as the lack of spoken word. To be more precise, they defined nonverbal communication as all that is not said, communication without words, communication that is not spoken or written, communication with all the instruments except the linguistic one, all that belongs to the communicational situation, and is not said by words etc. The analysis of the results of the first question showed that the participants often emphasise different things while defining nonverbal communication:

1. Six of the participants emphasised the transfer of information, message and the meaning while defining nonverbal communication.

2. Four of the participants emphasised that nonverbal communication is mostly unconscious communication, while two of them emphasized nonverbal communication can be conscious and unconscious, but the conscious nonverbal communication is learned.
3. One participant emphasised that nonverbal communication is the essential part of the communicative process.
4. Two of the participants emphasised that nonverbal communication serves to express thoughts and emotions, i.e. that nonverbal communication lets people see other people's feelings, thoughts, and attitudes.
5. One participant emphasised that nonverbal communication has the purpose of focusing attention.
6. One participant emphasised that nonverbal communication is an unwished way of saying what we wish, i.e. that sometimes people say what they think without wanting it, simply by using nonverbal communication signs.
7. One participant emphasised that nonverbal communication is the communication used during the teaching process.

After defining nonverbal communication the participants had to decide whether nonverbal communication is perceived more consciously or unconsciously. The majority of the participants (76.136 %) believe nonverbal communication is perceived more unconsciously, while only 12.5 % of the participants believe it is perceived more consciously. Five of the participants (5.682 %) believe that nonverbal communication is perceived equally consciously and unconsciously. Some of the participants stood out with their answers:

1. One participant answered that nonverbal communication is perceived unconsciously since we cannot control a great number of gestures, for example, our pupils dilation, and we do it as a reaction to the environment around us.



2. One participant answered that nonverbal communication is perceived unconsciously, but that it can be learned.
3. One participant answered that nonverbal communication is perceived more often unconsciously, but that it is analysed consciously.

Next, the participants had to decide how often they consciously pay attention to nonverbal communication signs during informal communication with another person. The majority of the participants (40.909 %) said that they rarely pay attention to nonverbal communication signs during informal communication. The exceptions were: if a person has pronounced nonverbal signs (e.g. hand waving), if the participant had a motif for consciously paying attention, if the nonverbal signs are frequent, if the participant is especially interested in what the speaker is saying. Total of 18.182 % of the participants very often pay conscious attention, while 15.909 % of the participants often pay attention. Only 9.091 % of the participants always pay conscious attention to nonverbal communication signs during informal communication, while 7.955 % of the participants never or almost never pay attention (the exception mentioned was if a person had a specific way of communicating, e.g. not watching the person in the eyes, but rather staring at the floor). Three of the participants emphasised that their level of attention depends on the type of communication (e.g. they pay more attention if they seek a complete meaning of the utterance). Four of the participants gave the following explanations:

1. I pay conscious attention to nonverbal communication when I talk to someone for the first time.
2. My level of conscious attention depends on whether I have known this person for a short or a long time.
3. If the nonverbal communication of a person is negatively focused towards me then I pay attention to it.

4. If it is not extremely important what the person is saying, then I do not pay attention to it.

When it comes to consciously paying attention to nonverbal communication signs of the professors during the teaching process, the results are a bit different. The majority of the participants (38.636 %) still rarely pay attention to them (except if they are not extremely pronounced), however, a great number of participants (34.091 %) does often<sup>18</sup> pay conscious attention to nonverbal communication signs of the professors. A smaller number of the participants (14.773 %) very often pay conscious attention, while six participants (6.818 %) always or almost always pay attention. Only two participants (2.273 %) never or almost never pay conscious attention to the nonverbal communication signs of the professors. Three of the participants mentioned that they pay conscious attention to the nonverbal communication of the professors if they are deconcentrated, if something is unnatural, and if the content is not interesting.

Nonverbal communication signs of the professors to which the students pay most attention during class are eye contact (68.812 %), body movements (55.682 %), and physical appearance of the professor (25 %). A small number of the participants (10.227 %) pay attention to the hand movement, and the same percentage of the participants pays attention to facial expressions. Only one student mentioned that they pay attention to the intonation, and only one student mentioned that they pay attention to the movements of the professors around the classroom.

The last task in the second part of the questionnaire was to estimate the percentage of paying conscious and unconscious attention to the physical appearance of a teacher, facial expressions,

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<sup>18</sup> One of the participants mentioned that if the class is boring then they pay more attention, and one mentioned that they pay more attention than in informal communication since all the attention is here directed towards the professor – it is like he/she is on a stage.

eye contact, and body movement. When it comes to the physical appearance of a teacher, the majority of the participants (68.182 %) believe it is perceived more consciously. A small number of the participants (15.909 %) believe it is perceived more unconsciously. The same percentage of the participants (15.909 %) believe it is perceived equally consciously and unconsciously.

The majority of the participants (59.091 %)<sup>19</sup> also believe that facial expressions are perceived more consciously, and 23.864 % of the participants believe they are perceived more unconsciously. The rest of the participants (17.045 %) believe facial expressions are perceived equally consciously and unconsciously.

The third nonverbal communication sign mentioned was eye contact. The majority of the participants (53.409 %) believe it is perceived more consciously, and 29.545 % of the participants believe it is perceived more unconsciously. That eye contact is perceived equally consciously and unconsciously believe 17.045 % of the participants.

Finally, when it comes to body movement, the majority of the participants (46.591 %) believe it is perceived more consciously, and 25% of the participants believe it is perceived more unconsciously. A little higher percentage of the participants (28.409 %) believe it is equally perceived consciously and unconsciously.

After the first two parts, the third part of the questionnaire was analysed. In the third part, the participants had to answer the questions by circling one of the given answers, on a scale from one to five (one being strongly disagree, and five strongly agree). The task was divided into four sections: claims regarding the physical appearance of a professor, claims regarding facial expressions, claims regarding eye contact, and claims regarding body movement. The results

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<sup>19</sup> Some of the participants were so precise about the percentage of consciously paying attention that the percentage was extremely high, e.g. 97% for consciously, and only 3% for unconsciously paying attention.

were analysed for each sentence individually, and will in that manner be presented in the following section. The answer with the majority of the participants will be underlined.

Claims regarding physical appearance of a professor:

1. In my first lecture, I consciously pay great attention to the physical appearance of the professor.
  - a. 1.136 % of the participants strongly disagrees.
  - b. 7.955 % of the participants disagrees.
  - c. 20.455 % of the participants nor agrees nor disagrees.
  - d. 39.773 % of the participants agrees.
  - e. 30.682 % of the participants strongly agrees.
2. Female professors should use a great amount of make-up during class.
  - a. 53.409 % of the participants strongly disagrees.
  - b. 32.955 % of the participants disagrees.
  - c. 7.955 % of the participants nor agrees nor disagrees.
  - d. 4.545 % of the participants agrees.
  - e. 1.136 % of the participants strongly agrees.
3. Professors should follow fashion trends.
  - a. 36.364 % of the participants strongly disagrees.
  - b. 25 % of the participants disagrees.
  - c. 25 % of the participants nor agrees nor disagrees.
  - d. 11.364 % of the participants agrees.
  - e. 2.273 % of the participants strongly agrees.
4. Professors should be formally dressed in class.
  - a. 4.545 % of the participants strongly disagrees.
  - b. 6.818 % of the participants disagrees.

- c. 22.727 % of the participants nor agrees nor disagrees.
  - d. 46.591 % of the participants agrees.
  - e. 19.318 % of the participants strongly agrees.
- 5. Professors should be informally dressed in class.
  - a. 20.455 % of the participants strongly disagrees.
  - b. 36.364 % of the participants disagrees.
  - c. 37.5 % of the participants nor agrees nor disagrees.
  - d. 5.682 % of the participants agrees.
- 6. Professors should be casually dressed in class.
  - a. 2.273 % of the participants strongly disagrees.
  - b. 23.864 % of the participants disagrees.
  - c. 51.136 % of the participants nor agrees nor disagrees.
  - d. 21.591 % of the participants agrees.
  - e. 1.136 % of the participants strongly agrees.
- 7. Male professors should wear professional suits in class.
  - a. 39.773 % of the participants strongly disagrees.
  - b. 27.273 % of the participants disagrees.
  - c. 26.136 % of the participants nor agrees nor disagrees.
  - d. 5.682 % of the participants agrees.
  - e. 1.136 % of the participants strongly agrees.
- 8. I consider it to be acceptable when female teachers wear short skirts or shorts in class.
  - a. 35.227 % of the participants strongly disagrees.
  - b. 35.227 % of the participants disagrees.
  - c. 19.318 % of the participants nor agrees nor disagrees.
  - d. 7.955 % of the participants agrees.

- e. 2.273 % of the participants strongly agrees.
9. I consider it to be acceptable when male professors wear shorts in class.
- a. 39.773 % of the participants strongly disagrees.
  - b. 28.409 % of the participants disagrees.
  - c. 17.045 % of the participants nor agrees nor disagrees.
  - d. 10.227 % of the participants agrees.
  - e. 4.545 % of the participants strongly agrees.
10. The smell of a professor can influence the reception of class content.
- a. 17.045 % of the participants strongly disagrees.
  - b. 13.636 % of the participants disagrees.
  - c. 26.136 % of the participants nor agrees nor disagrees.
  - d. 31.818 % of the participants agrees.
  - e. 11.364 % of the participants strongly agrees.

Claims regarding facial expressions:

1. I mostly understand professor's facial expressions generated during the teaching-learning process.
- a. 1.136 % of the participants strongly disagrees.
  - b. 3.409 % of the participants disagrees.
  - c. 14.773 % of the participants nor agrees nor disagrees.
  - d. 63.636 % of the participants agrees.
  - e. 17.045 % of the participants strongly agrees.
2. When the professor enters the class I consciously notice his/her facial expressions.
- a. 1.136 % of the participants strongly disagrees.
  - b. 13.636 % of the participants disagrees.
  - c. 13.636 % of the participants nor agrees nor disagrees.

- d. 47.727 % of the participants agrees.
  - e. 23.864 % of the participants strongly agrees.
3. The smile on the professor's face motivates me to take interest in the studies.
- a. 3.409 % of the participants disagrees.
  - b. 20.455 % of the participants nor agrees nor disagrees.
  - c. 37.5 % of the participants agrees.
  - d. 38.636 % of the participants strongly agrees.
4. Anger on the professor's face motivates me to take interest in the studies.
- a. 42.045 % of the participants strongly disagrees.
  - b. 32.955 % of the participants disagrees.
  - c. 19.318 % of the participants nor agrees nor disagrees.
  - d. 5.682 % of the participants agrees.
5. Different expressions on the face of a professor during teaching help me in understanding the content he/she is teaching.
- a. 5.682 % of the participants strongly disagrees.
  - b. 7.955 % of the participants disagrees.
  - c. 35.227 % of the participants nor agrees nor disagrees.
  - d. 38.636 % of the participants agrees.
  - e. 12.5 % of the participants strongly agrees.
6. I become motivated when a professor appreciates my involvement in the studies through his/her facial expressions in the classroom.
- a. 1.136 % of the participants strongly disagrees.
  - b. 2.273 % of the participants disagrees.
  - c. 18.182 % of the participants nor agrees nor disagrees.
  - d. 44.318 % of the participants agrees.

- e. 34.091 % of the participants strongly agrees.
7. Professor's facial expressions positively affect the teaching-learning process in the classroom.
- a. 1.136 % of the participants strongly disagrees.
  - b. 2.273 % of the participants disagrees.
  - c. 28.409 % of the participants nor agrees nor disagrees.
  - d. 37.5 % of the participants agrees.
  - e. 30.682 % of the participants strongly agrees.

Claims regarding eye contact:

1. Professor's eye contact makes me attentive in class.
- a. 1.136 % of the participants strongly disagrees.
  - b. 6.818 % of the participants disagrees.
  - c. 22.727 % of the participants nor agrees nor disagrees.
  - d. 43.182 % of the participants agrees.
  - e. 26.163 % of the participants strongly agrees.
2. I am always ready for a question from the professor when he/she makes eye contact with me in the classroom.
- a. 1.136 % of the participants strongly disagrees.
  - b. 9.091 % of the participants disagrees.
  - c. 22.727 % of the participants nor agrees nor disagrees.
  - d. 47.727 % of the participants agrees.
  - e. 19.318 % of the participants strongly agrees.
3. Professor's regular eye contact in the classroom provokes me to prepare my lesson before hand.
- a. 11.364 % of the participants strongly disagrees.



- b. 15.909 % of the participants disagrees.
  - c. 28.409 % of the participants nor agrees nor disagrees.
  - d. 34.091 % of the participants agrees.
  - e. 10.227 % of the participants strongly agrees.
- 4. I recognise professor's response from his/her eye contact during the lessons.
  - a. 2.273 % of the participants strongly disagrees.
  - b. 9.091 % of the participants disagrees.
  - c. 31.818 % of the participants nor agrees nor disagrees.
  - d. 45.455 % of the participants agrees.
  - e. 11.364 % of the participants strongly agrees.
- 5. Professor's regular eye contact makes the classroom environment alive to the lesson taught.
  - a. 1.136 % of the participants strongly disagrees.
  - b. 5.682 % of the participants disagrees.
  - c. 17.045 % of the participants nor agrees nor disagrees.
  - d. 47.727 % of the participants agrees.
  - e. 28.409 % of the participants strongly agrees.

Claims regarding body movement:

- 1. Body movements of the professor during the teaching process help me in understanding the lesson.
  - a. 5.682 % of the participants strongly disagrees.
  - b. 17.045 % of the participants disagrees.
  - c. 32.955 % of the participants nor agrees nor disagrees.
  - d. 34.091 % of the participants agrees.
  - e. 10.227 % of the participants strongly agrees.

2. I understand the lesson better when the professor uses his/her hands to give us the additional meaning of the topic.
- a. 5.682 % of the participants strongly disagrees.
  - b. 7.955 % of the participants disagrees.
  - c. 39.773 % of the participants nor agrees nor disagrees.
  - d. 37.5 % of the participants agrees.
  - e. 9.091 % of the participants strongly agrees.
3. I enjoy the teaching-learning process when the professor moves his/her hands, shoulders, and head to make the lesson more interesting and informative.
- a. 2.273 % of the participants strongly disagrees.
  - b. 12.5 % of the participants disagrees.
  - c. 32.955 % of the participants nor agrees nor disagrees.
  - d. 32.955 % of the participants agrees.
  - e. 19.318 % of the participants strongly agrees.
4. I lose interest and feel unmotivated when the professor sits in the chair during the teaching process.
- a. 10.227 % of the participants strongly disagrees.
  - b. 9.091 % of the participants disagrees.
  - c. 15.909 % of the participants nor agrees nor disagrees.
  - d. 26.136 % of the participants agrees.
  - e. 38.636 % of the participants strongly agrees.
5. Due to the body movements of the professor, the classroom environment becomes conducive to learning.
- a. 2.273 % of the participants strongly disagrees.
  - b. 7.955 % of the participants disagrees.

- c. 21.591 % of the participants nor agrees nor disagrees.
  - d. 35.227 % of the participants agrees.
  - e. 32.955 % of the participants strongly agrees.
6. Professor's body movements help me understand and take more interest in what the professor is saying.
- a. 1.136 % of the participants strongly disagrees.
  - b. 6.818 % of the participants disagrees.
  - c. 19.318 % of the participants nor agrees nor disagrees.
  - d. 46.591 % of the participants agrees.
  - e. 26.136 % of the participants strongly agrees.

After the analysis of the main research conducted in the Croatian language, the analysis of the additional research conducted in the English language followed. The procedure of the analysis remained the same. Firstly, the background information and the second part of the questionnaire were analysed, and then the analysis of the third part of the questionnaire, for each individual sentence, was done.

In the additional research, the participants mostly defined nonverbal communication as communication performed without using language as such, communication which does not use words for transmitting ideas and information, a means of communication which does not require producing sounds, communication that includes gestures, mime, body movements, facial expressions, eye contact and body language. All of the participants thought that nonverbal communication is perceived more unconsciously. When it comes to informal communication, 50% of the participants sometimes consciously pay attention to nonverbal communication, 30% of the participants almost always, and 20% of participants almost never consciously pay attention. Total of 40% of the participants sometimes consciously pay attention to nonverbal communication signs of the professors during class, 30% rarely pay attention, 20% almost

always pay attention, and 10% of the participants never consciously pay attention. Also, when it comes to the professors, 90% of the participants pay attention to eye contact, 50% of the participants pay attention to body movement, and 20% of the participants pay attention to facial expressions, as well as to physical appearance.

The last task in the second part of the questionnaire was to estimate the percentage of conscious and unconscious attention to specific nonverbal communication signs. According to the results, when it comes to the physical appearance of a teacher, 50% of the participants believe it is perceived more consciously, 30% believe it is perceived equally consciously and unconsciously, and 20% of the participants believe it is perceived more unconsciously. As for the facial expressions, 40% of the participants believe it is perceived more unconsciously, and 30% of the participants believe it is perceived more consciously, as well as equally consciously and unconsciously (30%). When it comes to the eye contact, 60% of the participants believe it is perceived more consciously, and 20% of the participants believe it is perceived more unconsciously, as well as equally consciously and unconsciously (20%). Finally, for the body movement, 40% of the participants believe it is perceived equally consciously and unconsciously, 30% of the participants believe it is perceived more consciously, and 30% more unconsciously.

The analysis of the third part of the questionnaire gave the following results:

Claims regarding physical appearance:

1. In my first lecture, I consciously pay great attention to the physical appearance of the professor.
  - a. 20% of the participants nor agree nor disagree.
  - b. 50% of the participants agree.
  - c. 30% of the participants strongly agree.

2. Female professors should use a great amount of make-up during class.
  - a. 50% of the participants strongly disagree.
  - b. 40% of the participants disagree.
  - c. 10% of the participants nor agree nor disagree.
3. Professors should follow fashion trends.
  - a. 40% of the participants strongly disagree.
  - b. 30% of the participants disagree.
  - c. 30% of the participants nor agree nor disagree.
4. Professors should be formally dressed in class.
  - a. 10% of the participants strongly disagree.
  - b. 10% of the participants disagree.
  - c. 20% of the participants nor agree nor disagree.
  - d. 50% of the participants agree.
  - e. 10% of the participants strongly agree.
5. Professors should be informally dressed in class.
  - a. 20% of the participants strongly disagree.
  - b. 40% of the participants disagree.
  - c. 40% of the participants nor agree nor disagree.
6. Professors should be casually dressed in class.
  - a. 20% of the participants strongly disagree.
  - b. 10% of the participants disagree.
  - c. 50% of the participants nor agree nor disagree.
  - d. 20% of the participants agree.

7. Male professors should wear professional suits in class.
  - a. 10% of the participants strongly disagree.
  - b. 60% of the participants disagree.
  - c. 20% of the participants nor agree nor disagree.
  - d. 10% of the participants strongly agree.
8. I consider it to be acceptable when female teachers wear short skirts or shorts in class.
  - a. 30% of the participants strongly disagree.
  - b. 50% of the participants disagree.
  - c. 10% of the participants nor agree nor disagree.
  - d. 10% of the participants strongly agree.
9. I consider it acceptable when male professors wear shorts in class.
  - a. 50% of the participants strongly disagree.
  - b. 20% of the participants disagree.
  - c. 20% of the participants nor agree nor disagree.
  - d. 10% of the participants strongly agree.
10. The smell of a professor can influence the reception of class content.
  - a. 10% of the participants strongly disagree.
  - b. 20% of the participants disagree.
  - c. 30% of the participants nor agree nor disagree.
  - d. 30% of the participants agree.
  - e. 10% of the participants strongly agree.

Claims regarding facial expressions:

1. I mostly understand professor's facial expressions generated during the teaching-learning process.
  - a. 90% of the participants agree.

- b. 10% of the participants strongly agree.
- 2. When the professor enters the class I consciously notice his/her facial expressions.
  - a. 10% of the participants disagree.
  - b. 20% of the participants nor agree nor disagree.
  - c. 50% of the participants agree.
  - d. 20% of the participants strongly agree.
- 3. The smile on the professor's face motivates me to take interest in the studies.
  - a. 20% of the participants nor agree nor disagree.
  - b. 40% of the participants agree.
  - c. 40% of the participants strongly agree.
- 4. Anger on the professor's face motivates me to take interest in the studies.
  - a. 30% of the participants strongly disagrees.
  - b. 70% of the participants disagree.
- 5. Different expressions on the face of a professor during teaching help me in understanding the content he/she is teaching.
  - a. 20% of the participants nor agree nor disagree.
  - b. 50% of the participants agree.
  - c. 30% of the participants strongly agree.
- 6. I become motivated when a professor appreciates my involvement in the studies through his/her facial expressions in the classroom.
  - a. 40% of the participants agree.
  - b. 60% of the participants strongly agree.
- 7. Professor's facial expressions positively affect the teaching-learning process in the classroom.
  - a. 20% of the participants nor agree nor disagree.

- b. 50% of the participants agree.
- c. 30% of the participants strongly agree.

Claims regarding eye contact:

1. Professor's eye contact makes me attentive in class.
  - a. 50% of the participants agree.
  - b. 50% of the participants strongly agree.
2. I am always ready for a question from the professor when he/she makes eye contact with me in the classroom.
  - a. 10% of the participants disagree.
  - b. 10% of the participants nor agree nor disagree.
  - c. 40% of the participants agree.
  - d. 40% of the participants strongly agree.
3. Professor's regular eye contact in the classroom provokes me to prepare my lesson before hand.
  - a. 10% of the participants strongly disagree.
  - b. 30% of the participants disagree.
  - c. 40% of the participants nor agree nor disagree.
  - d. 10% of the participants agree.
  - e. 10% of the participants strongly agree.
4. I recognise professor's response from his/her eye contact during the lessons.
  - a. 20% of the participants nor agree nor disagree.
  - b. 70% of the participants agree.
  - c. 10% of the participants strongly agree.



5. Professor's regular eye contact makes the classroom environment alive to the lesson taught.

- a. 50% of the participants agree.
- b. 50% of the participants strongly agree.

Claims regarding body movement:

1. Body movements of the professor during the teaching process help me in understanding the lesson.

- a. 10% of the participants disagree.
- b. 10% of the participants nor agree nor disagree.
- c. 70% of the participants agree.
- d. 10% of the participants strongly agree.

2. I understand the lesson better when the professor uses his/her hands to give us the additional meaning of the topic.

- a. 30% of the participants nor agree nor disagree.
- b. 50% of the participants agree.
- c. 20% of the participants strongly agree.

3. I enjoy the teaching-learning process when the professor moves his/her hands, shoulders, and head to make the lesson more interesting and informative.

- a. 30% of the participants nor agree nor disagree.
- b. 50% of the participants agree.
- c. 20% of the participants strongly agree.

4. I lose interest and feel unmotivated when the professor sits in the chair during the teaching process.

- a. 10% of the participants disagree.
- b. 20% of the participants nor agree nor disagree.

- c. 30% of the participants agree.
  - d. 40% of the participants strongly agree.
- 5. Due to the body movements of the professor, the classroom environment becomes conducive to learning.
  - a. 20% of the participants nor agree nor disagree.
  - b. 60% of the participants agree.
  - c. 20% of the participants strongly agree.
- 6. Professor's body movements help me understand and take more interest in what the professor is saying.
  - a. 60% of the participants agree.
  - b. 40% of the participants strongly agree.

## **4. Discussion**

The present study was aimed at analysing some aspects of nonverbal communication in the educational settings. Its objective was to find the ways in which physical appearance of a teacher, facial expressions, eye contact and body movement, as only some aspects of nonverbal communication, might influence the students' perception of the teachers' role and performance. The study also tried to find a possible connection between conscious and unconscious perception of nonverbal communication. The main findings of the study are mostly in relation to the theoretical background given earlier.

The definition of nonverbal communication received a number of varieties. It is easily seen from the results of the questionnaire that it is not an easy task to define nonverbal communication. There are various definitions of communication itself, and even more of the nonverbal communication and its role in the overall communicative process. Several authors such as Givens (2002:33) and Calero (2005:1) have defined nonverbal communication as wordless messages by means of many different aspects, starting from the whole body movement to such aspects as smell and colour. The majority of the students have also defined nonverbal communication as communication without words combined with many aspects in order to receive and give information. In addition to that, the results suggest also that some of the students form a similar opinion as the scientists who base their opinion of nonverbal communication on Darwin's saying, that nonverbal communication provides others with an evidence of the individual's internal state, i.e. their feelings, emotions, and thoughts. The complexity of defining nonverbal communication can be seen in the fact that, if all the definitions gathered from the questionnaires were combined and transformed into one single definition, then maybe one could give a more specific, yet not necessarily completely full, definition of nonverbal communication.

When it comes to conscious and unconscious perception of nonverbal communication, the results indicate that the majority of the students do believe that nonverbal communication is perceived mostly unconsciously. This goes in line with Duke (1974:400) who mentioned that much of our awareness of proper nonverbal behaviour is unconscious because people react without even noticing. The fact that most of our nonverbal communication does happen unconsciously, and is perceived unconsciously as well, is further indicated by the results related to informal and formal communication. According to the results, in both formal and informal communication, the majority of the participants rarely focus their attention consciously on nonverbal communication. There is though a difference between the number of students who do often pay conscious attention to nonverbal communication. While in informal communication, that number is fairly small (only 15.909%), in formal communication the percentage doubles (34.091%). This may be because in formal communication, in this case communication with a professor in an educational setting, according to many researchers such as Barabar & Caganaga (2015:139), Woolfolk & Brooks (1985:514-515) or Bassett & Smythe (1977), as quoted in Beebe (1980:19), nonverbal communication in educational settings serves many functions, and is more pronounced than in informal communication. This does not mean that in informal communication nonverbal aspects serve no function, but that in formal communication those aspects are more important to the students. The results of the research also indicate that eye contact is the most important aspect of nonverbal communication and that the students pay most attention consciously on it. Eye contact is further followed by body movement and physical appearance of a teacher. The question of conscious and unconscious perception of nonverbal communication is made more complicated with the results gained from the questionnaires. Although most students believe nonverbal communication is perceived more unconsciously, as do most of the researchers, when it comes to four specific aspects of nonverbal communication in question (physical appearance, facial expressions, eye contact and

body movement), according to the results, these aspects are perceived more consciously than unconsciously.

When it comes to the physical appearance in an educational context, not a lot of research was done. The results gained from the questionnaires mostly coincide with the results of the survey done by Peng Hong-li (2011) on the effects of nonverbal communication on college English classroom teaching. According to the results, students pay great attention to the physical appearance of a professor during the first lecture. This could mean that clothing also, does have a great impression and serves various roles in classroom teaching, especially during the first meeting. The results indicate that the students might construct their opinion of the professors based only on their physical appearance. In his study Chaikin (1978), as quoted in Beebe (1980:18), also mentioned that those teachers rated as more attractive were also rated as more competent and they were more likely to motivate their students. However, it is important to notice that more than half of the students strongly disapprove of the heavy use of cosmetics by the female teachers, which could mean that attractiveness, when it comes to female professors, is not necessarily connected to the use of cosmetics.

Closely related to the physical appearance is clothing. The results indicate that students do not expect teachers to follow fashion trends, however, they do expect them to dress professionally, which means no short skirts or shorts for female professors, as well as no shorts for male professors in class. When it comes to informal and casual clothing, most of the students neither agree nor disagree with professors dressing in such a way. Although most students agree with the fact that professors should be professionally dressed, they do not think professors should wear professional suits in class. This may be, as Peng Hong-li (2011:511) suggests, because suits seem to be too formal and serious, while other, professional yet not so formal clothes, do give a more friendly vibe, and students feel more relaxed. The way professors dress might influence the relationship between them and the students. Also, Duke (1974:403) mentioned

that one of the functions clothes fulfil is status. By dressing too formally or too serious, professors might indicate to their students that they are above them, which might create a distance in the communication between the professor and the student.

Finally, the results indicate that the smell of a professor can influence the reception of the class content among students. Be it a good or a bad smell, most of the students agree that they do affect their study.

Facial expressions are the best-known element of nonverbal communication, which is no wonder considering that, according to Calero (2005:66) we start learning how to read facial expressions as infants. With so much practice, at a university level, we could consider ourselves experts in reading facial expressions. The results of the study also indicate that the majority of the students do understand facial expressions of the professors during the teaching process and that they do consciously notice professor's facial expressions when he/she enters the classroom. Also, Bayes (1970), as quoted in Smith (1979:649), found that smile, as only one aspect of facial expressions, is the single best predictor of perceived warmth. The results also indicate that the smile on a professor's face does motivate students for the reception of the class content, while anger, on the other hand, does not motivate students at all. This leads to a slightly different conclusion than that of M. N. Butt (2011) in his study on the impact of nonverbal communication on student's learning outcomes. While M. N. Butt (2011:180) believes that facial expressions such as smile and anger do help students in understanding the message, the results of the present study indicate that anger helps get the message across only to a small number of students, 5.682% of them to be exact. However, the results indicate that facial expressions do help students in understanding the class content, they serve to motivate students and they positively influence the teaching process. This leads to the fact that facial expressions do play an important role in the teaching-learning process, as M. N. Butt (2011:180) states, and

they can make the teaching process more effective and interesting for the students and the professors.

Eye contact plays an important role in regulating interpersonal communication, especially in the educational context. The results of the questionnaires indicate that eye contact does make the students attentive in class, and makes them prepared for various questions from the professor if he/she maintains eye contact. Also, regular eye contact makes the students prepare in advance for the lesson taught. Maintaining eye contact with the students does make the teaching-learning process active and engaging. According to the results, it may be true what Caproni (1977), as quoted in Beebe (1980:9) found, that eye contact does influence students' participation in class. The conclusions made about eye contact as an aspect of nonverbal communication are here the same as in M. N. Butt (2011:181). Eye contact does definitely play an efficient role in teaching and learning, since it raises the level of attentiveness and alertness in the classroom, as well as motivates the students for their self-improvement. Plus, as M. N. Butt (2011:181) states, eye contact not only helps in improving the attention level of the students but also increases their understanding and influences positively the whole teaching-learning process. However, when it comes to eye contact, one needs to be extremely careful with cultural differences, as Pennycook (1985:264) mentions, because if one is not aware of them, they could lead to misinterpretation of the communicative process.

The last element of nonverbal communication analysed was body movement. M. N. Butt (2011:181) claims that the importance of body movement in classroom teaching was found lucid from the analysis of his questionnaires and that the participants endorsed the importance of body movement in the teaching and learning process. The same can be seen from the results of the present study which indicate that the majority of the students does consider body movement to be important in the teaching-learning process, that they find it motivating and it helps them in understanding the content, as well as makes it more interesting. Also, the results

indicate that, as well as eye contact, body movement makes students attentive and makes them focus their attention on what the professor is saying. Contrary to that, students lose interest and feel unmotivated if the professor spends the whole lecture sitting in a chair, involving no body movement. This is why it is no surprise the fact that, the majority of the students believe body movements do influence the classroom environment, which in turn becomes conducive to learning. The results of the study indicate that there really could be a difference between an "effective" and an "average" professor, as mentioned by Willett (1976), as quoted in Beebe (1980:6), who came to a conclusion that "effective" teachers use more motions in student-teacher interactions, when focusing student attention, or when demonstrating certain concepts. In addition to that, according to the results, passive or inactive teachers do evoke negative perceptions from the students, similar to what Seals and Kaufman (1975), as quoted in Beebe (1980:6), found in their study. There are many functions our body movements and positions serve with regards to our spoken utterance, as mentioned by Poyatos (2002:187), and it is, therefore, no wonder that body movement, eye contact, facial expressions and physical appearance, do serve a crucial role in the overall teaching and learning process.

By analysing the results of the present study, we came to the following conclusions:

1. The concept of nonverbal communication covers an extremely large area and is often difficult to define by focusing solely on some aspects.
2. Nonverbal communication is believed to be perceived mostly unconsciously, although some aspects of it (physical appearance, facial expressions, eye contact, body movements) are perceived more consciously.
3. During informal communication, people rarely pay conscious attention to nonverbal behaviour, while during formal communication a large number of people do often consciously pay attention to nonverbal communication.



4. Students pay most attention to eye contact while communicating with a professor, which is followed by body movements and physical appearance.
5. Physical appearance can influence students' perception of professors, especially in the first lecture. Certain dress codes are expected of the professors in class. The smell of a professor can influence the reception of the class content.
6. Students do consciously notice and mostly understand professors' facial expressions. Facial expressions do positively influence the teaching-learning process, and can motivate students for the reception of the class content (especially a smile).
7. Regular eye contact in the classroom makes students more attentive and willing to participate. It makes the teaching-learning process more active and students more prepared.
8. Body movements of a professor can help in understanding the class content, and they make the teaching-learning process more interesting and conducive to learning. Students feel unmotivated when there is a lack of body movement and can lose interest in the topic.

#### **4.1. Comparison of the English and the Croatian studies**

For the purpose of this research, an additional survey was conducted with the questionnaires translated into the English language. There were ten participants, all female, and all students of the English language and literature at the Faculty of Humanities and Social Sciences in Rijeka. The survey was done in order to see whether students think differently when a certain concept is presented to them in the English language, and not in the Croatian language, their mother tongue. The results indicate that there were no significant differences between the questionnaires in Croatian and those in the English language. The participants of both surveys defined nonverbal communication in a relatively same way, with fewer details mentioned in the survey conducted in the English language. This can, however, be attributed to the small

number of participants. The participants of the survey conducted in the English language also believe nonverbal communication is perceived more unconsciously, and there is no difference in the results aimed at informal and formal communication and the perception of nonverbal communication, as well as in the list of nonverbal communication signs of the professors to which students pay most attention. There is a small difference when it comes to participants' estimation of conscious and unconscious attention to specific nonverbal communication signs. In the survey conducted in the English language the majority of participants believe facial expressions are perceived more unconsciously, rather than consciously and that, body movements are perceived equally consciously and unconsciously rather than more consciously. This, however, could also be attributed to the small number of participants of the survey conducted in the English language. Finally, when it comes to the claims related to specific aspects of nonverbal communication, most of the answers are the same. Those answers that are not the same, differ only in a small percentage, and can again be caused by a small number of the participants. To sum up, the results of both surveys correlate in a great amount of questions, which means that, in this case, there is no difference in the opinions of the students when a certain concept is presented to them in a foreign language. The results have to be taken with caution, though, due to the difference in the number of participants of both surveys.

## 5. Conclusion

Our everyday interaction with people that surround us, be it in a formal or informal occasions, consists of the words we utter and the way we say them. It consists of the verbal aspect of the communication and the nonverbal aspect. Nonverbal communication can take many forms, and can greatly influence the flow of communication, as well as the speaker and the receiver of the message. It is of great importance that people become aware of the fact that how we say something can influence what we say.

One of the settings in which nonverbal communication is of great importance is the educational setting. Both professors and students are users and creators of nonverbal communication and can influence the message that is being conveyed. This paper dealt precisely with the aspect of nonverbal communication at the university level of education. Its main aim was to raise awareness of nonverbal communication, and the level of conscious and unconscious attention to it. In addition to that, it sought to find the connection between specific aspects of nonverbal communication (physical appearance, facial expressions, eye contact, body movements) and the students' perception of the teachers' role and performance. This was achieved through a study conducted among the students at the Faculty of Humanities and Social Sciences in Rijeka. The results indicate that nonverbal communication does indeed influence the teaching-learning process and can help students in better understanding of the content taught.

Our words and nonverbal behaviour form the communicative process through which we express our ideas, thoughts, feelings and form social connections. Nonverbal communication is a key feature of our daily interaction we seldom pay close attention to – at least consciously. We find it intriguing because it reveals something about us, and more importantly about the people and the world around us. We should never neglect one aspect of our communication in favour of

the other, and we should pay equal attention to what we say, and the way we say it. After all, each aspect of our communication is unique and equally important.

### **5.1. Suggestions for further research**

Nonverbal communication is an aspect of the communicative process which is constantly evolving with the environment around us. That is why further research is needed in the field of nonverbal communication in general, but specifically nonverbal communication in the educational context. Further research is needed in order to enable us to draw stronger conclusions about the actual situation in the Croatian educational system. Such research should focus on all levels of the educational system, starting from the kindergarten to the university level, but also on all aspects of nonverbal communication such as smell, space, distance etc. In addition to that, it would be good if research included not only the viewpoint of the students, but also the viewpoint of the professors. This would be of great importance in raising the awareness of nonverbal communication with all the participants in the teaching and learning process. Also, research could be done in order to see how sex influences the way we perceive nonverbal communication, i.e. to see in which way males, and in which way females perceive and interpret nonverbal communication. All of the mentioned could help us understand better nonverbal communication in the educational context, but also help us use it in the best way possible.

## 6. APPENDICES

### 6.1. APPENDIX A

#### Peng Hong-li (2011), Questionnaire

1. Through \_\_\_\_\_ you feel that the teacher's like or dislike of you?  
A. Language    B. Gestures    C. Eye-contact    D. Facial expressions
2. In the first class would you pay attention to a teacher's \_\_\_\_\_?  
A. Behavior    B. Attire    C. Appearance    D. Voice    E. All
3. Can you accept the heavy use of cosmetics of female teachers?  
A. Total unacceptance    B. Unacceptance    C. No opinion    D. Acceptance  
E. Total acceptance
4. How do you expect teachers to wear \_\_\_\_\_ in classroom?  
A. Fashionable    B. Professional    C. No opinion    D. Informal    E. Casual
5. Can you accept female teachers wear bare midriff, miniskirt and male teachers wear shorts or slippers?  
A. Total unacceptance    B. Unacceptance    C. No opinion    D. Acceptance  
E. Total acceptance
6. What do you think is the proper clothing for a teacher \_\_\_\_\_?  
A. Professional suits    B. Informal clothes (like jeans, T-shirt, sweater)    C. Any clean and tidy clothes    D. No opinion
7. Do you think that teachers' physical odor can affect your study?  
A. Much effect    B. General effect    C. No opinion    D. No effect

E. No effect at all

8. Do you think that the smell in the classroom or the environment can affect your study?

A. Much effect    B. General effect    C. No opinion    D. No effect

E. No effect at all

9. Which seating arrangement do you prefer while having lectures?

A. Straight-row    B. U-shape    C. Module

**Straight row**

**Lectern**

□ □ □ □

□ □ □ □

□ □ □ □

□ □ □ □

**U-shape**

**Lectern**

□       □

□       □

□   □

□ □ □

**Module**

**Lectern**

■ ■       ■ ■

■ ■       ■ ■

■ ■

■ ■

10. Which seating arrangement do you think is beneficial to discussion?

A. Straight-row    B. U-shape    C. Module

11. Do you think that lighting in a classroom can affect your study?

A. Much effect    B. General effect    C. No opinion    D. No effect

E. No effect at all

12. If given the chance to choose, where would you prefer to sit?

A. Under the light    B. Near the light    C. Far from the light    D. No opinion

13. When a teacher speaks, which of the following tone can draw your attention?

A. Soft and monotonous    B. Soft but rhythmical    C. Loud and rhythmical

D. Loud but monotonous

## **6.2. APPENDIX B**

**M. N. Butt (2011), Questionnaire**

### **QUESTIONNAIRE FOR STUDENTS**

**Topic:** Impact of non-verbal communication on students' learning outcomes

**Note:** This questionnaire is floated in order to elicit information leading to completion of an important academic study. Your co-operation and support would go a long way to complete this research, which would be highly appreciated. The information would be kept confidential and use only for this research. Please answer the questions to the best of your knowledge.

#### **Part I**

##### **Personal information**

Please provide the following information.

1. Gender:                      male ( )              female ( )
2. Age.....(years)
3. Level of the student: 9<sup>th</sup> class ( )              10<sup>th</sup> class ( )
4. Name of the school.....

#### **Part II**

##### **Opinion Towards Non-Verbal Communication**

Following are the 05 sections of items that relate to (i) facial expression (ii) eye contact (iii) body movements (iv) spatial distance (v) pitch of voice. Below is the 5-point scale. Please indicate the degree to which you agree or disagree to the given statements, as per following abbreviation.

- 1) **Strongly Agree              (SA)**

- 2) Agree (A)
- 3) Un-Decided (UD)
- 4) Disagree (D)
- 5) Strongly Disagree (SD)

### Section – I

#### Facial Expressions

Q1.1	I mostly understand teacher's facial expressions generated during teaching learning process.	SA	A	UD	D	SD
Q1.2	When teacher enters in the class I notice his/her facial expressions.	SA	A	UD	D	SD
Q1.3	Smile on teacher's face motivates me to take interest in the studies.	SA	A	UD	D	SD
Q1.4	Anger on teacher's face motivates me to take interest in the studies.	SA	A	UD	D	SD
Q1.5	Different expressions on the face of teacher during teaching help me in understanding the concept, he/she is teaching.	SA	A	UD	D	SD
Q1.6	I become motivated when teacher appreciates my involvement in the studies through his/her facial expressions in the classroom.	SA	A	UD	D	SD
Q1.7	Teacher's facial expressions positively affect the teaching learning process in classroom.	SA	A	UD	D	SD

### Section – II

#### Eye Contact

Q2.1	Teacher's eye contact makes me attentive in the class.	SA	A	UD	D	SD
Q2.2	I am always ready for a question from the teacher when he/she makes eye contact with me in the classroom.	SA	A	UD	D	SD



Q2.3	Teacher's regular eye contact in the classroom provokes me to prepare my lesson before hand.	SA	A	UD	D	SD
Q2.4	I recognize teacher's response from his/her eye contact during lessons.	SA	A	UD	D	SD
Q2.5	I recognize teacher's appreciation for me during lesson from his/her eye contact.	SA	A	UD	D	SD
Q2.6	Teacher's regular eye contact makes the classroom's environment alive to the lesson taught.	SA	A	UD	D	SD

### Section – III

#### **Body Movements**

Q3.1	Body movements of the teacher during teaching process help me in understanding the lesson.	SA	A	UD	D	SD
Q3.2	I understand the lesson more effectively when the teacher uses his/her hands to give us additional meaning of the topic.	SA	A	UD	D	SD
Q3.3	I enjoy teaching learning process when teacher moves his/her hands, shoulders and head to make the lesson more interesting and informative.	SA	A	UD	D	SD
Q3.4	I lose interest and feel unmotivated when my teacher sits in the chair during teaching process.	SA	A	UD	D	SD
Q3.5	Due to the body movements of the teacher, the classroom environment becomes conducive to learning.	SA	A	UD	D	SD
Q3.6	Teacher's body movements help me to understand and take more interest in stories narrated by teacher.	SA	A	UD	D	SD

## Section – IV

### Pitch of Voice

Q4.1	Very high pitch of the teacher's voice creates problems in understanding the teaching and the lesson.	SA	A	UD	D	SD
Q4.2	Very low pitch and tone of teacher's voice also create difficulty in understanding the lesson.	SA	A	UD	D	SD
Q4.3	Soft pitch of teacher's voice attracts my attention toward teaching learning process.	SA	A	UD	D	SD
Q4.4	Intonation or rise and fall in teacher's voice provide me better understanding of the lessons related to poems.	SA	A	UD	D	SD
Q4.5	I find difficult to understand the teaching when my teacher speaks very fast and quick.	SA	A	UD	D	SD

## Section – V

### Spatial Distance

Q5.1	Personal distance between teacher and student makes the classroom environment more conducive to and comfortable for learning.	SA	A	UD	D	SD
Q5.2	Teachers normally keep a fair distance with the students, from 14 inches to 4 feet, in the class.	SA	A	UD	D	SD
Q5.3	I feel at ease in learning the lesson when my teacher keeps proper distance from me in the classroom.	SA	A	UD	D	SD
Q5.4	I feel uncomfortable and face difficulty in understanding the teaching when a teacher does not keep proper distance from me in the classroom.	SA	A	UD	D	SD

### 6.3. APPENDIX C

#### Questionnaire in the Croatian language

Poštovani,

Molim Vas da odvojite malo svoga vremena kako biste iskreno odgovorili na sljedeća pitanja. Upitnik je anoniman i dobiveni podaci koristit će se isključivo u znanstveno-istraživačke svrhe.

Hvala Vam na pomoći! ☺

**Spol:**

**Dob:**

**Godina studiranja:**

Kako biste definirali neverbalnu komunikaciju?

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Smatrate li da se neverbalna komunikacija percipira više svjesno ili nesvjesno?

---

Koliko često svjesno obraćate pažnju na neverbalne znakove tijekom neformalne komunikacije s nekom osobom?

---

Koliko često svjesno obraćate pažnju na neverbalne znakove profesora tijekom nastave?

---

Na koje neverbalne znakove profesora obraćate najviše pažnje? (npr. kontakt očima, fizički izgled, pokreti tijela itd.)

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Prema Vašoj slobodnoj procjeni, u kojoj se mjeri sljedeći znakovi neverbalne komunikacije zapažaju svjesno, a u kojoj mjeri nesvjesno? Na prazne crte upišite postotke.

1. Fizički izgled nastavnika: \_\_\_\_\_ % svjesno; \_\_\_\_\_ % nesvjesno
2. Izrazi lica: \_\_\_\_\_ % svjesno; \_\_\_\_\_ % nesvjesno
3. Kontakt očima: \_\_\_\_\_ % svjesno; \_\_\_\_\_ % nesvjesno
4. Pokreti tijela: \_\_\_\_\_ % svjesno; \_\_\_\_\_ % nesvjesno

**Molim Vas da na sljedeća pitanja odgovorite tako da zaokružite jedan od ponuđenih odgovora.**

**1 – uopće se ne slažem**

**2 – uglavnom se ne slažem**

**3 – niti se slažem niti se ne slažem**

**4 – uglavnom se slažem**

**5 – u potpunosti se slažem**

Na prvome predavanju svjesno obraćam veliku pažnju na fizički izgled profesora/ice.	1	2	3	4	5
Profesorice bi trebale koristiti veću količinu šminke prilikom održavanja nastave.	1	2	3	4	5
Profesor/ica bi trebao/la biti modno osviješten/a.	1	2	3	4	5
Profesor/ica bi trebao/la na nastavi biti formalno odjeven/a.	1	2	3	4	5
Profesor/ica bi na nastavi trebao/la biti neformalno odjeven/a.	1	2	3	4	5
Profesor/ica bi na nastavi trebao/la biti ležerno odjeven/a.	1	2	3	4	5
Profesori bi na nastavi trebali nositi odijela.	1	2	3	4	5
Smatram da je prihvatljivo da profesorice na nastavi nose kraće suknje ili kratke hlače.	1	2	3	4	5
Smatram da je prihvatljivo da profesori na nastavi nose kratke hlače.	1	2	3	4	5
Miris profesora/ice može utjecati na recepciju nastavnoga sadržaja.	1	2	3	4	5

Uglavnom razumijem izraze lica profesora/ica tijekom nastavnoga procesa.	1	2	3	4	5
Kad profesor/ica uđe u učionicu primijetim svjesno njegov/njezin izraz lica.	1	2	3	4	5
Osmjeh na licu profesora/ice motivira me za učenje nastavnoga sadržaja.	1	2	3	4	5
Ljutnja na licu profesora/ice motivira me za učenje nastavnoga sadržaja.	1	2	3	4	5
Različiti izrazi lica profesora/ice tijekom nastave pomažu mi u razumijevanju nastavnoga sadržaja.	1	2	3	4	5
Postajem motiviran/a kada profesor/ica kroz različite izraze lica cijeni moje sudjelovanje u nastavi.	1	2	3	4	5
Izrazi lica profesora/ice pozitivno utječu na poučavanje nastavnoga sadržaja u učionici.	1	2	3	4	5

Zbog kontakta očima profesora/ice pažljivo pratim nastavu.	1	2	3	4	5
--	---	---	---	---	---

Uvijek budem spreman/na na pitanje profesora/ice ako održava kontakt očima sa mnom u učionici.	1	2	3	4	5
Redoviti kontakt očima profesora/ice tjera me da se unaprijed pripremim za nastavu.	1	2	3	4	5
Prepoznajem odgovor profesora/ice iz njegova/njezina pogleda tijekom nastave.	1	2	3	4	5
Redoviti kontakt očima profesora/ice čini nastavni proces aktivnim.	1	2	3	4	5

Pokreti tijela profesora/ice tijekom nastavnog procesa pomažu mi u razumijevanju nastavnog sadržaja.	1	2	3	4	5
Bolje razumijem nastavni sadržaj kada profesor/ica koristi ruke kako bi pobliže objasnio/la temu.	1	2	3	4	5
Uživam u nastavnome procesu kada profesor/ica pomiče ruke, ramena i glavu kako bi nastavni sadržaj učinio/la zanimljivijim.	1	2	3	4	5
Izgubim interes i osjećam se demotivirano kada profesor/ica sjedi u stolici tijekom poučavanja nastavnoga sadržaja.	1	2	3	4	5
Pokreti tijela profesora/ice utječu na ozračje u učionici i učenje nastavnoga sadržaja.	1	2	3	4	5
Pokreti tijela profesora/ice pomažu mi u razumijevanju i obraćam više pažnje na ono što profesor/ica govori.	1	2	3	4	5

## 6.4. APPENDIX D

### Questionnaire in the English language

Dear all,

I kindly ask You to answer the following questions honestly. This questionnaire is anonymous and the results will be used only for research purposes.

Thank you for your help! ☺

**Sex:**

**Age:**

**Year of study:**

How would you define nonverbal communication?

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Do you think nonverbal communication is perceived more consciously or unconsciously?

---

How often do you consciously pay attention to nonverbal communication signs during the informal communication with another person?

---

How often do you consciously pay attention to nonverbal communication signs of professors during class?

---

On which nonverbal communication signs of the professors do you pay most attention to during class? (e.g. eye contact, physical appearance, body movement etc.)

---

According to your free estimation, how much are following nonverbal communication signs perceived consciously and how much unconsciously? Write the percentage on the line.

1. Physical appearance of a teacher: \_\_\_\_\_ % consciously; \_\_\_\_\_ % unconsciously
2. Facial expressions: \_\_\_\_\_ % consciously; \_\_\_\_\_ % unconsciously
3. Eye contact: \_\_\_\_\_ % consciously; \_\_\_\_\_ % unconsciously
4. Body movement: \_\_\_\_\_ % consciously; \_\_\_\_\_ % unconsciously

**Please answer the following questions by circling one of the given answers.**

**1 – strongly disagree**

**2 – disagree**

**3 – nor agree nor disagree**

**4 – agree**

**5 – strongly agree**

In my first lecture, I consciously pay great attention to the physical appearance of the professor.	1	2	3	4	5
Female professors should use a great amount of make-up during class.	1	2	3	4	5
Professors should follow fashion trends.	1	2	3	4	5
Professors should be formally dressed in class.	1	2	3	4	5
Professors should be informally dressed in class.	1	2	3	4	5
Professors should be casually dressed in class.	1	2	3	4	5
Male professors should wear professional suits in class.	1	2	3	4	5
I consider it to be acceptable when female teachers wear short skirts or shorts in class.	1	2	3	4	5
I consider it acceptable when male professors wear shorts in class.	1	2	3	4	5
The smell of a professor can influence the reception of class content.	1	2	3	4	5

I mostly understand professor's facial expressions generated during the teaching-learning process.	1	2	3	4	5
When the professor enters the class I consciously notice his/her facial expressions.	1	2	3	4	5
The smile on a professor's face motivates me to take interest in the studies.	1	2	3	4	5
Anger on a professor's face motivates me to take interest in the studies.	1	2	3	4	5
Different expressions on the face of a professor during teaching help me in understanding the content he/she is teaching.	1	2	3	4	5
I become motivated when a professor appreciates my involvement in the studies through his/her facial expressions in the classroom.	1	2	3	4	5
Professor's facial expressions positively affect the teaching-learning process in the classroom.	1	2	3	4	5

Professor's eye contact makes me attentive in class.	1	2	3	4	5
I am always ready for a question from the professor when he/she makes eye contact with me in the classroom.	1	2	3	4	5
Professor's regular eye contact in the classroom provokes me to prepare my lesson before hand.	1	2	3	4	5
I recognise the professor's response from his/her eye contact during lessons.	1	2	3	4	5
Professor's regular eye contact makes the classroom environment alive to the lesson taught.	1	2	3	4	5

Body movements of the professor during teaching process help me in understanding the lesson.	1	2	3	4	5
I understand the lesson better when the professor uses his/her hand to give us the additional meaning of the topic.	1	2	3	4	5
I enjoy the teaching-learning process when the professor moves his/her hand, shoulders, and head to make the lesson more interesting and informative.	1	2	3	4	5
I lose interest and feel unmotivated when the professor sits in the chair during the teaching process.	1	2	3	4	5
Due to the body movements of the professor, the classroom environment becomes conducive to learning.	1	2	3	4	5
Professor's body movements help me understand and take more interest in what the professor is saying.	1	2	3	4	5



## 7. References

1. *Advanced Communication Skills*. 2010. MTD Training & Ventus Publishing Aps.
2. Allen, Quinn, Linda. 1999. "Functions of Nonverbal Communication in Teaching and Learning a Foreign Language." *The French Review* Vol.72: pp. 469-480.
3. Barabar, Aysenil & Caganaga, Kivanc, Cagda. 2015. "Using Nonverbal Communication in Efl Classes." *Cypriot Journal of Educational Sciences* Vol.10: pp. 136-147.
4. Beebe, Steven, A. 1980. *The Role of Nonverbal Communication in Education: Research and Theoretical Perspectives*. Paper presented at the Speech Communication Association Convention (66th, New York, November 13-16, 1980).
5. Butt, Naeem, Muhammad. 2011. *Impact of Non-Verbal Communication on Students' Learning Outcomes*. Faculty of Arts, Social Sciences & Education. Sarhad University of Science and Information Technology, Peshawar – Pakistan: D.Phil. thesis.
6. Calero, H., Henry. 2005. *The Power of Nonverbal Communication: How You Act Is More Important Than What You Say*. Los Angeles: Silver Lake Publishing.
7. Duke, R., Charles. 1974. "Nonverbal Behavior and the Communication Process." *College Composition and Communication* Vol. 25: pp. 397-404.
8. Galloway, Charles. 1968. "Nonverbal Communication." *Theory into Practice* Vol. 7: pp. 172-175.
9. Givens, B., David. 2002. *The Nonverbal Dictionary of Gestures, Signs & Body Language Cues*. Washington: Center for Nonverbal Studies Press.
10. Knapp, L., Mark. 1971. "The Role of Nonverbal Communication in the Classroom." *Theory into Practice* Vol. 10: pp. 243-249.
11. Krauss, M., Robert, Chen, Yihsiu & Chawla, Purnima. 1996. "Nonverbal Behavior and Nonverbal Communication: What do Conversational Hand Gestures Tell Us?"

- Advances in experimental social psychology*. San Diego, CA: Academic Press. pp. 389-450.
12. *Longman Dictionary of Contemporary English*. 2009. England: Pearson Education Limited.
  13. Peng, Hong-li. 2011. "Effects of Non-verbal Communication on College English Classroom Teaching." *US-China Foreign Language* Vol. 9: pp. 505-516.
  14. Pennycook, Alastair. 1985. "Actions Speak Louder Than Words: Paralanguage, Communication, and Education" *TESOL Quarterly* Vol. 19: pp. 259-282.
  15. Postman, Neil. 2006. *Amusing Ourselves to Death: Public Discourse on the Age of Show Business*. London: Penguin Books.
  16. Poyatos, Fernando. 2002. *Nonverbal Communication across Disciplines: Volume II: Paralanguage, Kinesics, Silence, Personal and Environmental Interaction*. Amsterdam/Philadelphia: John Benjamins Publishing Company.
  17. Riggio, E., Ronald & Feldman, S., Robert. 2005. *Applications of Nonverbal Communication*. New Jersey: Lawrence Erlbaum Associates, Inc.
  18. Smith, A., Howard. 1979. "Nonverbal Communication in Teaching." *Review of Educational Research* Vol. 49: pp. 631-672.
  19. Woolfolk, E., Anita & Brooks, M., Douglas. 1983. "Nonverbal Communication in Teaching." *Review of Research in Education* Vol. 10: pp. 103-149.
  20. Woolfolk, E., Anita & Brooks, M., Douglas. 1985. "The Influence of Teachers' Nonverbal Behaviors on Students' Perceptions and Performance." *The Elementary School Journal* Vol. 85: pp. 513-528.
  21. Woolfolk, E., Anita & Galloway, M., Charles. 1985. "Nonverbal Communication and the Study of Teaching." *Theory Into Practice* Vol. 24: pp. 77-84.

22. Woolfolk, L., Robert & Woolfolk, E., Anita. 1974. "Effects of Teacher Verbal and Nonverbal Behaviors on Student Perceptions and Attitudes." *American Educational Research Journal*, Vol. 11: pp. 297-303.
23. Goodreads. 2016. Webpage. < <http://www.goodreads.com/quotes/857760-the-eyes-are-the-mirror-of-the-soul-and-reflect> > Accessed 17<sup>th</sup> July 2016.
24. Oxford Dictionaries. 2016. Webpage.  
<<http://www.oxforddictionaries.com/definition/english/communication> > Accessed 15<sup>th</sup> July 2016.
25. Wikipedia. 2016. Webpage. < <https://en.wikipedia.org/wiki/Communication> >  
Accessed 15<sup>th</sup> July 2016.