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| KAPAKgenel  [**www.ijres.net**](http://www.ijres.net) | **Adsız**  **Elements of Teacher Communication Competence: An Examination of Skills and Knowledge to Communicate**  **Ljubica Bakić-Tomić1, Jasmina Dvorski2, Anamarija Kirinić3**  1University North, Croatia, ljbajkictomic@gmail.com  2University of Zagreb, Croatia, jdvorski@ffzg.hr  3University of Maribor, Croatia, anamarija.kirinic@predsjednica.hr |
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**ELEMENTS OF TEACHER COMMUNICATION COMPETENCE: AN EXAMINATION OF SKILLS AND KNOWLEDGE TO COMMUNICATE**

**Ljubica Bakić-Tomić1[[1]](#footnote-1), Jasmina Dvorski2, Anamarija Kirinić3**

1University North, Croatia, 2University of Zagreb, Croatia, 3University of Maribor, Croatia

In Croatia after 1995 appeared a radical change in education. The Ministry of Education and Science of Croatia approved and funded the research project entitled "Information and communication competences of educators" that consisted of two parts: theoretical, study of the available literature on the communication competence of teachers in the world, especially in Europe and conduction of research of teachers’ communication skills in Croatia. The study was conducted with the aim of assessing the situation and defining the problems which need to be changed within the education system as to educate the future teachers to be competent for the new challenges associated with the school work. The aim of the research was to get an insight into different aspects of communication competence among primary education teachers. Main conclusions were that teachers do not perceive or connect burnout at work with communication in classroom (they are not aware of their lack of communication knowledge and adequate communication skills). They do not have sufficiently developed skills to manage conflicts and negotiation skills. Communication in the classroom is interpersonal communication with particular students. They do not possess leadership and group communication skills.

**Keywords:** Communication competence; Students’ perception of teachers; Teachers' burnout at work; Teachers’ social communication style; Teachers communication spontaneity

1. **INTRODUCTION**

The first task of this paper is to define what the communication competences of teachers are, what they comprise of, what kind of knowledge and skills are expected of teachers. Previous researches in the world and in Europe gave valuable guidelines for the study of communication skills of teachers in Croatia that was conducted during 2012 and will be presented in this paper. The main idea of the study was to improve teacher education in order to provide better prepared teaching staff for school work. Due to the severity of the problem, the Ministry of Science approved the research project entitled "Information and communication competences of educators". This paper will present theoretical research overview and as well give the results of empirical survey conducted among Croatian teachers.

**The Theoretical Framework and Scientific Interest for Communication Competences of Teachers**

According to Michele De Beni (De Beni 2012, 217-21) we live in time of non-communication (which sounds like a paradox in time of mass communication) in which the private space and language are constricted: the time-space distance is reduced, but instead loneliness occurs. We live in time which is marked by individuality in which we all are isolated and focused on our little egoistic interests and more afraid of each other. We live in time of anonymity, in which people are valued according to what they represent and how much they produce and are in danger of losing their true “face”. We live in time of insecurity in which are all more independent when compared to the past, but more confused and unsure which path to choose.

There are a number of various approaches to human development but teachers also have the option of choosing wisely by solving problems from the past in order to get ready for the future, keeping in mind the openness to change. However, here lies the biggest obstacle – the proactive-reactive way of thinking. The teachers partake too often in problem solving instead of trying to foresee changes, which are two different approaches to future. The first one stems from the perspective focused on the past (“we always did it like that”), whereas the other one is proactive and focuses on the future (“how we can do things differently”). We must admit that the change is inevitable and that growth and development are the only options left. “The illiterate in the 21st century will not be those who cannot read and write but those who cannot learn, unlearn and relearn” (Toffler according to Rosado 2004, 2).

Karl R. Popper and John C. Eccles have given the interpersonal communication an important role starting from the three-part interpretation of the hypotheses of three worlds: physical, psychological and cultural. The most important realisation is that our personality communicates with the others via the module of liaison brain following the principles of geometric progression and that it continues to develop throughout life which means that we learn communication by communicating. This is a circular dynamic process which begins with birth and ends with death. Therefore it is never too late to learn how to communicate, to correct, improve and develop one's communication skills (Popper, and Eccles 1990).

Jack Hawley (Hawley 2002) points out that those who lead others (managers, teachers) should be ethical and moral in their relationships. They should keep to the basic human values: truth, non-violence, love, peace and right conduct (morality). All this can be accomplished by communication which is the means to accomplish a certain goal, which should be love toward people. Only then, when the teacher knows his students better than their parents, will his work be effective. The teacher should reach to the hearts of his students and they should work together and cooperate, toward the goals which they have set together.

New findings in the field of education redefine the concept of education (education= educare) into educere=education, which means to bring out from within, to establish the harmony of thoughts, words and actions, to create a wholesome man, an educated personality and not a man who is full of knowledge but lacks certain basic human values (Pedagogy of Communication and the Agazzi Method). The Chiara Lubich education defines the process of education as a way of becoming human for a reason, as a way toward what we need to become. But that what should become cannot be forced onto a person (who is unique) which takes this path. The goal of education cannot be something outward or different from the person being educated, because this person is actually the goal of this whole process (according to De Beni 2012, 219). According to Jack Hawley: “The person whose heart is full of compassion, whose words are truthful, whose body is busy helping others will never fall under a bad influence and will always remain on the right path” (Hawley 2002, 129).

1. **(RE)EDUCATION**

The perception of one's life is built through social intelligence, through cultural, national and religious aspects of the society. To change the perception, in order to expand it and include awareness of the spirit into it, means to become aware of life as one's own creation driven by thoughts built in character. This relationship between reality and concepts is given by F. Capra, who believes that most of us are not aware of the limitations and relativity of conceptual knowledge. „*Given that our perception of reality is more understandable than the reality itself we often consider our interpretation and symbols as our own reality. Conceptual learning is limited and relative, and it must have access to the experimental context”* (Bratanić 2001, 27). Conceptual knowledge gives us information. Living that information through everyday life situations opens the possibility for inner transformation and vision fulfilment. With connection to this interpretation let me quote the famous psychology researcher, Albert Einstein said that "True education is that which remains behind after forgetting what we have learned."

Knowledge is the starting point, but it is not self-sufficient (Celli 2006). Pedagogical approach to developing human potential can enrich social and cultural aspects of an individual by encouraging awareness and open-mindedness. To re-educate means to awake a new dimension, called spirit, into thinking and acting. This way a teacher will be *transformed* into a *dharmic*teacher, which means to act and teach with the inner truth which combines the elements of integrity, *values* and one's character. It means to act right and apply *righteousness*.

…*The word dharmic... means a meld of spirit, character, human values, and decency in the workplace and in life as a whole*.*”* (Hawley, 2002, p. 1).

1. **WHAT ARE COMMUNICATION COMPETENCES?**

Communicology is an interdisciplinary science researching why a person communicates, how he does it and how successfully, in order to achieve the emancipation of the individual and society as a whole. The operative knowledge, skills and attitudes constitute the core of teachers' competences. However, the cultural heritage of teachers should also be taken into account within a certain social environment (Domazet 2011, 159).

Communicative competences are considered holistically by some authors: Bratanić 2002; Bakic-Tomic 2003; Bakić-Tomić, and Globočnik Žunac 2011, 189-95; Bakic-Tomić, and Foy, and Plenković 1999; as an integral method: Bašić et al 1994; Bakic-Tomic 2003; as a new paradigm of education: Bratanić 1999, 2002; Splical 2005 according to Bakić-Tomić 2011; has been studied as a communication profile: Bakić-Tomić 2003; Lewis, and Valente, and Horn 2005 according to Ibid, 189-95; or as communication style trainers: Jones 1994; Bakic-Tomić, 2003; Ibid, 189-95.

Most authors agree that communication competence of educators consists of knowledge, behaviour, skills, motivation and attitudes. Some authors speak of an intuitive teacher but there are not many of them. Teachers acquire competence by imitating their role models, whereas the biggest part of their competence remains undiscovered (Baranić 2000, 2002, 2004; Bakic-Tomić 2003; Atkinson, and Claxton 2000, 1-12; Burke, and Sadler-Smit, 2006). Communication competences can be defined as the ability to adapt the message to interaction and the context while feedback is used as information about the (non) successful adaptation.

The holistic perspective speaks about the mutual interconnectivity between communication and relationships. Communication takes place through such interactions of the symbols among persons in relation. However, the atmosphere of communication and degree of connectivity and interaction are also relevant. "Lack of trust and fear of any kind of interaction can have a distorting effect on the communication" (Jacques, 1991, p. 51). Axioms by Paul Watzlawick, among other things, reveal that communication takes place at the level of relation and the level of context. At relation level successful communication is achieved under the assumption that there is trust and cooperation. At context level it is necessary to have a stock of symbols and knowledge about their denotative and connotative meanings.

There is another trap in teachers' profession. The relationship between teachers and students is by its very nature professional. As such, it should be more rational and less emotional, more public and less private. Richard N. Bush (according to Bakic-Tomic 2003) in his study analysed relationships between each teacher and each student and discovered that the primary elements of a successful relationship between teachers and students are: personal affection, mutual understanding, interests, attitudes and values, intelligence, social background and working methods (Bratanić 1999). Bush concluded that if personal affection between a teacher and a student is disrupted, that their relationship has been disrupted as well and with this also the possibility of cooperation and achieving professional goals and objectives. It is for this reason that the teachers' communication competences are very important.

Separation of affection, as part of interpersonal competences of teachers can be found in works of Wong Yu Fai (1996). He emphasises creating a pleasant classroom atmosphere, emanation of warmth and affection for students as something very important. Effective communication and successful collaboration creates greater opportunities for improving relations. In this process the communication competences of teachers come into the foreground. Arthur Bochner, and Clifford Kelly 1974 (according to Spitzberg, and Cupach 1984) highlighted the following criteria for successful communication: realisation of the task and the ability to collaborate and adapt to different situations. Authors: Pearce (1976); Ruben (1976); Wiemann, and Kelly (1981, 283-98) point out that mutual satisfaction of those who cooperate is also an important criterion (according to Bakić-Tomić, and Globočnik Žunac 2011, 189-195)

1. **RESEARCH ON COMMUNICATION COMPETENCES OF TEACHERS**

In 1968 Holland and Baird have developed a scale to measure communication competences which then referred exclusively to interpersonal communication. Therefore, this scale should be reviewed and redefined. Fred Edmund Jandt and Todd Armstrong (according to Jandt 1995, 39-43) led the project developing interpersonal competence on a sample of teachers in the USA. All experience and knowledge which the researchers collected in 1984 have been outlined in the book "Interpersonal communication competence" by Brian Spitzberg, and William Richard Cupach. Communication competence is reflected in the recognition of the reciprocal and interdependent nature of human interaction and can be seen only in the context of the relationship (Spitzberg, and Cupach 1984).

The research, which aimed to isolate and reveal the factors which influence successful cooperation and mutual satisfaction (Fitts 1970; Ruben 1976; Wiemann, and Backlund 1980; according to Spitzberg, and Cupach 1984), outlines the following factors: showing respect, attitude toward interaction, interaction management, tollerance of ambiguity, orientation to knowledge and empathy, flexible behaviour, interaction management. A survey conducted in Slovenia (Kozmus, and Kirinić 2010, 21-32) in 11 elementary schools with the aim of discovering the key factors that contribute to or complicate the establishment of cultural relations within the school, showed that interpersonal relations and communication are critical factors. The key is the relationship and communication between the management staff and the teachers. When it is proactive and synergic this will be reflected on the relationship and communication between teachers and students, teachers and teachers and teachers and parents. The quality of the relationship between management staff and teachers influences the development of a positive image of teachers about their profession, the application of the constructive and cooperative methods in the teaching process (high correlations were found (r = 0,76). Furthermore it has been found that the relationship between the management staff and teachers influences poor communication and relationships in all three directions (colleague, student, parent). This non-quality communication breeds conflicts, frustration, formality and control and gives rise of dissatisfaction and demotivation. Environment of quality relations and communication predominates in two thirds of the schools researched.

The common factor in the results of the research is empathy, complex and multi-layered human capacity of connectivity, the ability to establish and maintain interpersonal relationships and effective interpersonal communication. Empathy affects the social perception and attitudes and empathic communication is the path towards dialogue - a factor of successful cooperation and mutual satisfaction (Bakić-Tomić, & Globočnik Žunac 2011, 189-195). Competencies are propositions based on which educators operate. Communication competences are abilities to adapt the message and the context where the feedback is used as information about the (non) effectiveness of the process. Communication competence provides a developed ability to manage changes (Bakić-Tomić 1999, 2003, 2004; Valente, and Horn 2005; Santos 2005; Elliot, and Grigorenko 2006; Allen 2006; all according to Bakić-Tomić, and Globočnik Žunac 2011, 189-195). Many studies wanted to find an answer to the question: what distinguishes effective from ineffective educators? Their answers are different and mostly focus on four groups of important elements: knowledge, behaviour, motivation and skills (Kelly 1998).

At the Cambridge College in Massachusetts, the University of Houston, Gordon Dryden and Jeannette Vos (2001) composed a four-part curriculum and at the top of the list they put the curriculum of personal growth and development that includes self-confidence, motivation, ability to communicate, to establish and maintain relationships. Communication competence and its understanding James C. Mc Croskey calls „The Elusive Construct“(McCroskey and McCroskey 1988). He outlines on what the teachers should work, stating however that this goal of perfection can be asymptotically approached but never reached. The research conducted by the Stanford Research Institute, USA, shows that there are some aspects of education which are neglected. According to the findings it is believed that what constitutes a successful educator is 12% knowledge and 88% skills (according to Hawley 2002, 2).

In Croatia the most productive researcher on communication competence of teachers is Marija Bratanić (1993, 1997, 1999, 2000, 2001, 2002, 2003). She studied interaction and communication in classrooms, as well as empathy and competence as key elements of successful interpersonal interaction in a teacher-student relationship. Also she was engaged in a research on teachers' attitudes and their impact on interpersonal relationships and quality of educational work, the role of emotions in interpersonal interactions between students and teachers, and its influence on the success and motivation of students. Communication styles and communications profiles were examined by Ljubica Bakić-Tomić (2003).

The greatest barrier to the development of communication competences are stereotypes, prejudice and bad communication habits (Bašić et al 1994; Bakić-Tomić 2003), together with the lack of quality educational programs for the teachers. The latest approaches to education are based on the concept of "educator - communicator" and include the application of information technologies and communicational knowledge and skills. It is a somewhat more complex approach that better reflects the demands of communication in the profile of contemporary educators. (Bakić-Tomić 1999, 2005; Bratanić 2000, 2002, 2003; according to Bakić-Tomić, and Globočnik Žunac 2011, 189-195).

How successful the teacher will be depends on the level of his communication competence towards the individual student but as well towards the whole group (class). Competent communicator must speak and do what is appropriate to the situation taking into account the individual and global consequences of this behaviour (Itković et al 1999). Communication competences include two types of skills: cognitive skills which help to find successful ways of achieving personal and relational goals, and behavioural which help in achieving of set goals (Itković et al 1999). A teacher's expertise is observable in the communication context whereas with regard to relations a more important role is played by his pedagogical, psychological and communication competence (Bratanić 1997).

Research conducted in Croatia show that the interactive communication style of teacher is connected with his profession. This means that those teachers who have developed communication skills in their profession (e.g. Croatian or foreign language teachers) use them more successfully in their work with students. Miscalculation of the situation motivates teachers to resort to condemnation or punishment rather than a word of understanding, encouragement and help. The cause of that is often a lack of competence to "read" nonverbal signs as well as the lack of compassion and the ability to understand (Bratanić 1997). Competence of educators can be assessed and evaluated in the context of relationship according to the students' performance, established cooperation and mutual satisfaction.

The quality of relationship often depends on the quality of communication, as Igor Longo (2004) states: "communication is the relationship, the relationship is communication" (Longo 2004, 5). Of particular importance is how the individual receives the message and what is it, how he responds to it and whether it improves the relationship or compromises it because building relationships and loss of relationships are the most important experiences in life (Basić et al 1994). Marko Mušanović, and Sofija Vrcelj, and Jasminka Zloković (2003, 371-77) reported that many countries have implemented programs called PATHS (Promoting Alternative Thinking Strategies) with the objective of increasing tolerance for frustration, improving awareness, respect for others and emotional understanding, which is not the case in Croatia.

Ljubica Bakić-Tomić (1999) defined a communication profile as the indication of knowledge about successful and high quality communication, similar to what James C. McCroskey called „The Elusive Construct“. The communication profile aspects are: **Nonverbal** potential refers to the understanding and explaining ‘the body language’ (mimics, gestures and movements) as a supplement to verbal communication, the way of expressing individual’s attitudes and sentiments and their sincerity in the communication process. **Verbal potential** refers to oral manners, i.e. sending messages so they could be better understood, so they are as complete, clear, unambiguous, definite, non-insulting and non-generalising as much as they can be (in the form: never, always…). **Respective potential** refers to the willing component of the relation, tolerance and the respect of the collocutor, with all his flaws and virtues, no matter what his current mood and reaction is. What we have here is communication listening i.e. emphatic ability (the ability to understand others) and silence. **Unconscious potential** refers to understanding yourself and others in an interactive relationship. It should be kept in mind that a person enters the communication process bringing his personality, experience, beliefs, values and norms with him but also with his defences, prejudice, fears and frustrations. That means to have equal rights in communication and not to be superior or inferior in relation with other person. **Dialog potential** refers to the ability of an individual to cooperate with others and to lead a sincere and open conversation without employing manipulative techniques and games. That means to reveal and understand expectations, needs and intentions of others and to inform others about one's own (implementation of successful communication feedback and metacommunication methods). Communication profile corresponds to the aspects of observing communication process based on Paul Watzlawick axioms (accoding to Bakić-Tomić, and Foy, and Plenković 1999; Bakić-Tomić 2003).

A teacher should have leadership and organisation abilities, as well as communication abilities developed. From that perspective to teach means to be able to look through the eyes of others. This implies care, i.e. taking an active interest in lives and growth of others, which is nothing coincidental but rather an intentional logic of meeting and communicating with other people's humanness. Every human being has the desire to be recognised and appreciated. Ernesto Oliviero (1997) emphasised that “if you speak and if I am listening, you are changing me”. A person who knows how to listen attentively and emphatically enriches himself and changes himself, if because of nothing else then because of his continuous efforts to be consciously present in a given situation and within a communication context and not just be there. If every human being would do his best with love, commitment and effort, this world would indeed be a virtuous whole and a happy place under the sun.

1. **MATERIAL AND METHODS**

At the Faculty for Teacher Education of the University of Zagreb a scientific project entitled “Information and communication competences of educators” led by Ljubica Bakić-Tomić and funded by the Ministry of Science, Education and Sports has been conducted from 2007 until 2013. Within the scope of this project several larger and smaller researches have been conducted. One of the larger researches has been conducted during the academic year 2011/2012 collected by the PhD candidate Dunja Zvonarek (2012). Statistical analyse made by PhD Joško Sindik. A smaller segment of this research shall be presented in this paper. The aim of the research was to get an insight into different aspects of communication competence (non-verbal competence, listening competence, fear of communication, social communication styles) and self-evaluation of communication competences among primary education teachers.

For research purposes a questionnaire battery was used (6 questionnaires for teachers and 2 questionnaires for students) for measuring communication competences by James C. McCroskey (McCroskey, and McCroskey: "Self-report as an approach to measuring communication competence" 1988), which until now has never been applied in Croatia whereas it has been used in the US and Europe. Preliminary research has been conducted in 2010/2011 on a sample of 100 students of elementary education (10-11 years old) and on students of the final, fifth year studying at the Faculty for Teacher Education of the University of Zagreb. The questionnaires have been adapted to cultural differences and statistical check of the methodological validity of the questionnaires has been run for their application in Croatia. Main research has been conducted in 2011/2012. The sample consisted of 8 elementary schools in Croatia, two out of each region where the population density is highest (middle and northern Croatia). 87 elementary school teachers (all female) and 730 students aged 10-11 took part in the research.

The questionnaires for teachers measured:

1. Social communication styles
2. The degree of non-verbal spontaneity of teachers
3. Teachers' ability to listen
4. Self-perception of evaluation of the teachers' communication competences
5. Fear of communication among teachers
6. The degree of teachers' burnout at work

 The questionnaires for students measured:

1. How to the students feel when communicating with the teacher?
2. The degree of communication attractiveness of the teacher as seen by the students

*Research Hypotheses*

1. There is a correlation between the aspects of social communication styles and the aspects of burnout at work of elementary school teachers.
2. There is a correlation between the degree of development of communication aspects (non-verbal competence, listening competence, fear of communication, social communication styles) and self-evaluation of communication competences among primary education teachers.
3. There is a correlation between different communication aspects (non-verbal competence, listening competence, fear of communication, social communication styles) and aspects of burnout at work among teachers of primary education.
4. There is a correlation between the aspects of students' impressions of teachers and aspects of their evaluation of teachers' communication competences.
5. **RESULTS AND DISCUSSION**

**Draga, krivo smo se razumjele. Ekstra tekst je samo počupan sa interneta i poslal sam ti ga radi terminologije. Tekst koji ide u rad je samo ovaj crveni. Kako nisam sigurna mogu li iščupati iz tvoje verzije u kojoj je plagijat sa interneta, molim te da pregledaš crveni tekst, samo on ide u članak plavi moraš izbaciti u cijelosti.**

The KMO statistic is a Measure of Sampling Adequacy, both overall and for each variable (Kaiser 1970 Cerny and Kaiser 1977; Dziuban & Shirkey, 1974). The overall KMO is printed in the "KMO and Bartlett's Test" table of the Factor output. The Measures of Sampling Adequacy (MSA) for individual variables are printed as the diagonal elements of the Anti-image Correlation matrix in the "Anti-image Matrices" table of the Factor output.

The KMO statistic is a summary of how small the partial correlations are, relative to the original (zero-order) correlations. The partial correlation for each pair of variables in the factor analysis   
is comprised of the correlation between those variables after partialling out the influence of all of the other variables in the factor analysis. (The off-diagonal elements of the Anti-image correlation matrix are the partial correlations multiplied by -1.0.) If the variables share common factor(s), then the partial correlations should be small and the KMO should be close to 1.0. The KMO measure should equal 0.5 when the correlation matrix equals the partial correlation matrix. A special case of this situation is the case where the original correlation matrix is an identity matrix. As the correlation matrix approaches an identity matrix, the KMO value, as calculated by the Statistical Algorithms formula, approaches .5. The SPSS program code sets KMO to .5 when the correlation matrix is an identity matrix, avoiding the division-by-0 problem.

KMO values *greater than 0.8 can be considered good*, i.e. an indication that component or factor analysis will be useful for these variables. This usually occurs when most of the zero-order correlations are positive. KMO values less than .5 occur when most of the zero-order correlations are negative. Bartlett's test is used to test the null hypothesis. For varimax a simple solution means that each factor has a small number of large loadings and a large number of zero (or small) loadings. This simplifies the interpretation because, after a varimax rotation, each original variable tends to be associated with one (or a small number) of factors, and each factor represents only a small number of variables. In addition, the factors can often be interpreted from the opposition of few variables with positive loadings to few variables with negative loadings. When using Likert-type scales we calculate and report Cronbach’s alpha coefficient for internal consistency reliability for every subscales one be using. The analysis of the data then use these summated subscales and not individual items. It is necessary because we have had a few questions for one dimension.

Budući je baterija testova sadržavala 8 subtestova i 17 Questionnaire dimension (vidi tablicu 1), u statističkoj obradi imali smo korelacijsku matricu sa brojnim pojedinačnim varijablama koje je trebalo grupirati po dimenzijama i u subtestove. Ovako složena matrica zahtijevala je i vrlo složenu statističku obradu. Kaiser, Mayer, Olkin (KMO) measure of Sampling Adequacy results pokazuje da svih 8 subtestova pokazuju pozitivne rezultate, jer su svi rezultati >0. 5. Bartlett's test is used to test the null hypothesis (all correlation is significant at p<0.01). We used Likert-type scales and we calculate and report Cronbach’s alpha coefficient for internal consistency reliability for every subscales (questionnaire dimension) which be using. The analysis of the data then use these summated subscales and not individual items. It is necesary because we have had a few questions for every dimension. Vidimo u petom stupcu da varijable Interpersonal communication 0,024 and listening 0,052, Cronbach’s alpha has the lowest item-total correlation value. This indicates that these variables are not measuring the same construct as the rest of the items in the scale are measuring. On the and we aplaid varimax rotation, after that each original variable tends to be associated with one (or a small number) of factors, and each factor represents only a small number of variables. The factors has been interpreted from the opposition of few variables with positive loadings to few variables with negative loadings, yet.

Rezultati u tablici 1 pokazuju da su svi subtestovi (njih osam u prvom stupcu) i sve dimenzije (njih 17 u četvrtom stupcu ) from questionnaire adequate for factorisation.

*Principal component analysis - latent dimensions (after varimax rotation) for variable groups within all questionnaires (author James C. McCroskey)*

Table 1. Principal component analysis of a questionnaire

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Test number** | **Kaiser, Meyer, Olkin measure of Sampling Adequacy results** | **Bartlett's sphericity test** | **Questionnaire dimension** | **Cronbach's α**  **Reliability test** | **Questionnaire adequate for factorisation** |
| *1. Interpersonal attraction degree* | 0,842 | χ2=2904,110  p<0,01 | Social attraction | 0,252 |  |
| Physical attraction | 0,726 |
| Task appeal | 0,262 |
| *2. Social communication styles scale* | 0,728 | χ2=422,711  p<0,01 | Assertiveness | 0,610 |  |
| Responsiveness | 0,787 |
| *3. Self perceived evaluation of communication competence test* | 0,767 | χ2=288,892  p<0,01 | In pairs | 0,716 |  |
| Strangers | 0,527 |
| Acquaintances | 0,588 |
| Friends | 0,452 |
| *4. Degree of non-verbal spontaneity test* | 0,624 | χ2=426,988  p<0,01 | Non-verbal *spontaneity* | 0,543 |  |
| *5. How do I feel communicating with my teacher?* | 0,911 | χ2=4415,272  p<0,01 | How do students feel communicating with their teacher | 0,781 |  |
| *6. Teacher's burnout degree at work* | 0,824 | χ2=678,994  p<0,01 | Burnout at work | 0,878 |  |
| *7. Fear of the communication test* | 0,386 | χ2=461,198  p<0,01 | Group discussion | 0,548 |  |
| Meetings | 0,313 |
| Interpersonal communication | 0,024 |
| Public speaking | 0,310 |
| *8. Listening competence test* | 0,751 | χ2=447,211  p<0,01 | Listening | 0,052 |  |

The table demonstrates that social and physical attraction have shown satisfactory reliability compared to James C. McCroskey's results, which means that the results are almost identical to the results of the research he conducted on American students, although there is a difference with regard to task appeal, so we cannot be certain of the reliability of our results. This component makes it necessary to culturally adjust the questionnaire, which has been done for a more recent research. Generally, we can conclude that our results do not deviate much from James C. McCroskey's research results.

**1. Correlation between aspects of social communication style and aspects of burnout at work among elementary school teachers**

Table 1. Correlation between aspects of social communication style and aspects of burnout at work among elementary school teachers N=87)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| variables | assertiveness | responsiveness | Burnout at work |  |
| assertiveness | 1 | .587\*\* | .160 |  |
| responsiveness |  | 1 | .098 |  |
| burnout at work in total |  |  | 1 |  |

*\*\*correlation is significant at p<0.01 (2-sided)*

*\*correlation is significant at p<0.05 (2-sided)*

*Grey zone= cross correlations; White zone= inter correlations*

There is a statistically significant correlation between social communication styles. We can conclude that not harming others is the strongest mutual characteristic when talking about responsiveness in communication with others. Considering assertiveness, the most significant component that defines it is strong individuality, whereas both responsiveness and assertiveness are signs of kindness in relations toward others. There is no statistically significant correlation between burnout at work and social communication style. The first hypothesis has not been confirmed.

**2. Correlation between the degree of development of different communication aspects (non-verbal competence, listening competence, fear of communication, social communication styles competence) and self-evaluation of communication competences among primary education teachers.**

Table 2. Correlation between the degree of development of different communication aspects (non-verbal competence, listening competence, fear of communication, social communication styles competence) and self-evaluation of communication competences among primary education teachers

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Variables | in pairs | strangers | acquaintances | friends | Group discussion | meetings | Interpersonal | Public speaking | listening | Nonverbal spontaneity |
| assertiveness | -.167 | .264\* | -.132 | -.194 | -.012 | .023 | .000 | -.016 | -.145 | .130 |
| responsiveness | .143 | .119 | .084 | .123 | .069 | -.079 | -.073 | -.091 | -.065 | .329\*\* |
| in pairs | 1 | -.378\*\* | .892\*\* | .782\*\* | -.015 | -.102 | -.039 | .029 | .310\*\* | .221\* |
| strangers |  | 1 | -.255\* | -.314\*\* | .095 | -.126 | -.174 | -.189 | -.142 | -.027 |
| acquaintances |  |  | 1 | .734\*\* | .034 | -.093 | -.080 | .022 | .352\*\* | .155 |
| friends |  |  |  | 1 | .069 | -.116 | .133 | -.018 | .199 | .220\* |
| group discussion |  |  |  |  | 1 | .257\* | .211 | .188 | .103 | .183 |
| meetings |  |  |  |  |  | 1 | -.052 | .240\* | -.009 | -.018 |
| interpersonal |  |  |  |  |  |  | 1 | -.022 | -.121 | .068 |
| public speaking |  |  |  |  |  |  |  | 1 | .077 | .027 |
| listening |  |  |  |  |  |  |  |  | 1 | .157 |
| nonverbal spontaneity |  |  |  |  |  |  |  |  |  | 1 |

*\*\*correlation is significant at p <0.01 (2-smjerna)*

*\*correlation is significant at p <0.05 (2-smjerna)*

*grey zone= cross-correlation; white zone= inter correlations*

There are a total of 13 statistically significant correlations. Teachers show significant non-verbal responsiveness when communicating with people who they consider close to them and that only with regard to interpersonal communication. That means that teachers do not show non-verbal spontaneity in the classroom. The same has been confirmed for listening competence. Teachers in the classroom do not show enough interest in listening to students they are not close to. They are trained to participate in group discussions and to speak at meetings, but not in the classroom. They are assertive and benevolent toward strangers and people different than themselves only with regard to interpersonal communication. We can also conclude that they can hardly manage a classroom situation if it involves students who are different and to who they are not close, which means that they are not good at management in classroom with regard to communication. That also appoints to inappropriate communication during conflicts in a classroom. Research conducted in 2009 on a sample of 142 teachers (83 subject teachers and 59 class teachers) in 5 elementary schools in the city of Zagreb (Gregurić, and Bakić-Tomić, and Globočnik Žunac 2009, 9-20) showed which strategies are mostly used by teachers when managing conflicts. Those strategies are avoiding, adjusting, competition, compromise and cooperation.

Results show that the majority of teachers manages conflict using the adjustment approach, with cooperation at the second place and use compromise very rarely. Considering the fact that adjustment belongs to the category of ineffective strategies when managing conflicts, it can be assumed that there is a certain percentage of teachers who suppress their own needs, wishes and goals, putting the needs, wishes and goals of others in conflict before their own. Compromise and competence as strategies in conflict management used very rarely show that the majority of teachers are not used to standing up for their interests, needs and wishes. When suppressing their needs, wishes and interests teachers become dissatisfied, angry and disappointed. Those feelings expand on their work and relations with students what then furthermore affects school climate and classroom climate and that leads to long term dissatisfaction with their profession, low self-confidence, loss of interest and resistance toward all changes in professional training, work and education as a whole. Not being able to manage a particular situation in the classroom appoints to insufficiently developed negotiation skills, which are extremely important for a positive climate in the classroom. The second hypothesis has been partially confirmed.

**3. Correlation between different communication aspects (non-verbal competence, listening competence, fear of communication, social communication styles) and aspects of burnout at work among teachers of primary education**

Table 3. Correlation between different communication aspects (non-verbal competence, listening competence, fear of communication, social communication styles) and aspects of burnout at work among class teachers (N=87)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | Non-verbal spontaneity | group discussion | meetings | interpersonal | public speaking | listening | Burnout at work |
| assertiveness | .130 | -.012 | .023 | .000 | -.016 | -.145 | .160 |
| responsiveness | .329\*\* | .069 | -.079 | -.073 | -.091 | -.065 | .098 |
| Non-verbal spontaneity | 1 | .183 | -.018 | .068 | .027 | .157 | -.064 |
| group discussion |  | 1 | .257\* | .211 | .188 | .103 | .053 |
| meetings |  |  | 1 | -.052 | .240\* | -.009 | .060 |
| interpersonal |  |  |  | 1 | -.022 | -.121 | -.058 |
| public speaking |  |  |  |  | 1 | .077 | -.214 |
| listening |  |  |  |  |  | 1 | -.174 |
| Burnout at work in total |  |  |  |  |  |  | 1 |

*\*\*correlation is significant at p<0.01 (2-sided)*

*\*correlation is significant at p<0.05 (2-sided)*

*Grey zone= cross correlations; White zone= inter correlations*

There are no communication aspects that are statistically significantly related to burnout at work, which leads to the conclusion that teachers do not think that communication is a reason for their burnout at work. The previous analysis has shown that teachers’ communication in classroom lacks quality and efficiency, but as they are not aware of it, they do not relate burnout at work to the bad-quality communication. The third hypothesis has not been confirmed.

**4. Correlation between the aspects of pupils' impressions of teachers and aspects of their evaluation of teachers' communication competences.**

Table 4. Correlation between the aspects of pupils' impressions of teachers and aspects of their evaluation of teachers' communication competences (N=730)

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Social attraction | Physical attraction | Task appeal | Understanding in total | Teachers 'comprehensibility | Teachers’ non comprehensibility |
| Social attraction | 1 | .451\*\* | .142\*\* | .092\* | -.063 | .041 |
| Physical attraction |  | 1 | .325\*\* | .041 | -.065 | -.024 |
| Task appeal |  |  | 1 | -.036 | -.083\* | -.140\*\* |
| Understanding in total |  |  |  | 1 | -.653\*\* | .493\*\* |
| Teachers 'comprehensibility |  |  |  |  | 1 | .337\*\* |
| Teachers’ non comprehensibility |  |  |  |  |  | 1 |

*\*\*correlation is significant at p<0.01 (2-smjerna)*

*\*correlation is significant at p<0.05 (2-smjerna)*

*Grey zone= cross-correlation; White zone= inter correlations*

There are 9 correlations between the aspects of students' impressions of teachers and aspects of their evaluation of teachers' communication competences. There is a significant correlation between the social and physical attraction and task appeal, but also a negative correlation between the task appeal and teacher’s comprehensibility, which means that if students find a task unattractive, the teacher will seem incomprehensible. Therefore, there is no correlation between the aspects of interpersonal attraction of teachers to pupils and the degree of development of communication aspects (comprehensibility) of teachers. That means there is no positive correlation between the aspect of pupils' impressions of teachers and aspects of their evaluation of teachers' communication competences. From a whole of 3 statistically significant cross-correlations, two are negative and one, although statistically significant, is zero. The fourth hypothesis has not been confirmed because a partially negative correlation was found (and not a positive one).

**Conclusion**

1. Preliminary research has helped to adapt the original questionnaire by James C. McCroskey (1988) to the cultural differences in Croatia.
2. With regard to responsiveness while communicating the strongest mutual characteristic is not harming others. For assertiveness the predominant component which characterises assertiveness is strong personality, while both responsiveness and assertiveness imply care. However, no statistically significant correlation has been found between burnout at work and social communication styles.
3. There are latent dimensions which correspond to the communication competences, that students when evaluating the communication competences of their teachers are guided by their social and physical attractiveness, whereas their comprehensiveness is connected with task appeal, i.e. learning motivation and whether the classes are interesting and comprehensible, which emphasises the methodical skills of teachers.
4. Teachers show significant nonverbal responsiveness with regard to the collocutor when communication with people they are close to and that refers solely to interpersonal communication. This means that the teachers do not show nonverbal spontaneity in classrooms and that they do not carefully listen to their students, except when engaged in interpersonal communication with them.
5. Based on the results of previous researches we can conclude that teachers cannot adequately solve conflicts in classrooms and that they lack negotiation skills.
6. Teachers do not perceive or connect burnout at work with communication in classroom (they are unaware of the lack of communication skills and knowledge).
7. Students do not connect communication competences of teachers with their attractiveness while teaching. What is more, a negative correlation has been found. If the majority of teachers does not communicate well enough the students perceive that as something common. They to not connect the teacher's attractiveness with communication or some other factors.

We can conclude that communication competences of teachers are equally necessary for teachers' success as methodical skills, but also that both students and teachers are not aware enough of the importance of quality communication which contributes to better school climate.

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1. Corresponding Author: *Ljubica Bakić-Tomić, ljbakictomic@gmail.com* [↑](#footnote-ref-1)