

RECEPTIVE NON-VERBAL EMOTIONAL MANIFESTATIONS IN FUNCTION OF STUDENTS SCHOOL COMPETENCE

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Abstract

Emotional competence, defined as a receptive nonverbal emotional manifestation, such as the ability to recognize, understand, and express emotions is important in the context of its impact on students' competence in school. The purpose of this research was to examine the relationship between receptive nonverbal emotional manifestations and school competence.

The study sample consisted of 87 subjects (N=47 girls and N=40 boys). The experimental design exposed the experimental group to psychostimulative treatment, while the control group served to control the effect of relevant variables within the psychostimulatory variability. The decoding abilities of nonverbal emotional signals were measured through the Receptive Nonverbal Emotional Manifestation Test (DANVA) while social and school competencies were measured through the Socio-School Competence Scale (SCSS).

Contrary to expectations, no differences were found between boys and girls in emotional competence and academic self-efficacy. A link was established between all aspects of emotional competence and school competence, and it was shown that the competence to decode nonverbal emotional signals from fascial expression, was the only independent predictor of school competence. Better development of the ability to notice and understand, as well as to express and name emotions from fascial and intonative expression was associated with a significant increase in students' school competences. No correlation was found between emotional decoding by bodily expression and school competence. The results are discussed in the context of their impact on school competence and achievement and suggestions are offered for their implementation in the school system.

Keywords: Receptive emotional manifestation, school competence, fascial emotional decoding, bodily emotional decoding, intonative emotional decoding.

1. Introduction

Learning, if we see it as a complex process of acquiring knowledge and skills, is most often seen through the prism of cognitive skills, as essential skills for effective knowledge learning. However, compared to cognition and motivation, the role of emotions in learning has received much less attention from researchers, although emotions are an important aspect of understanding the learning process. Despite the growing number of studies, research on this topic shows that students' competences and emotional and social functioning have significant implications on learning, adaptation in and out of school, but above all on school achievement and success (Durlak, Weissberg, Dymnicki, Taylor & Schellinger, 2011).

For students, schools represent important contexts, which affect their social, emotional, and cognitive development. In classrooms and other school settings, children and adolescents are required to have skills such as managing negative emotions, being calm and focused, following instructions, and forming positive relationships with peers and adults (Bouffard, 2012), and these requirements are formulated under the guise of social and emotional competencies.

Receptive nonverbal emotional manifestations are defined as emotional competences, more specifically as the ability to identify emotions from fascial, bodily expressions, and expressive intonations. This definition gives a curial importance to body language, which is manifested through the use of physical behavior, non-verbal expressions carried out instinctively and

unconsciously. The way the individual hears, looks, moves and reacts - tell the interlocutor whether interest is shown or not, whether sincerity is celebrated, etc (Jeanne Segal, 2016). School competence includes students' skills, attitudes and behaviours that contribute to school success, not just their academic achievements (Elliott, 2002). Hulumtimet brenda modelit të kompetencave shkollore tregojnë se aftësitë dhe njohuritë e fituara shkollore janë parashikuesi më i mirë i suksesit të ardhshëm shkollor për nxënësit në arsimin e mëtejshëm (La Paro, 2000). A significant number of studies highlight the relationship between emotional competence, including the ability to identify, recognize and understand emotions, with competences and school achievements, starting from primary, continuing with secondary and higher education. What is lacking, has to do with the limited and low number of studies that research the effect and impact of emotional competences on school competences. The assumption on the relationship between school and emotional competencies arises from the revolutionary theory of emotional intelligence, which has been developed by Daniel Goleman (1995). This theory places emphasis on the importance of emotions, emphasizing that they exceed the importance of intelligence in general, and implicating the life of the individual in general, from his decisions, performance, as well as school life (Goleman, 1995). The possession of emotional intelligence by students, as well as the identification of emotions through nonverbal expression makes it easier for children to understand personal and collective emotions, which directly affects the improvement of daily functioning, including school (Goleman, 1995). From the literature reviewed, it was identified that the understanding of emotions shows a positive relationship with school achievement and with the index of social and school problem solving, showing some connection between the child's understanding of emotions, achievement in school and the capacity to solve problems of a social nature (Maria da Glória Franco, 2017). The developmental study conducted in elementary school aimed to identify the impact that emotional competencies have on students' school achievements. The results highlighted that emotion knowledge in preschool age is an important predictor of later academic achievement, at the same time a mediating variable was identified which is defined as attention skills which together with children's emotion recognition ability are two main components for improving school competence in the first years of school (Rhoades, 2011). The relationship between receptive nonverbal emotional manifestation, more specifically the component of identifying emotions from fascial expression and school competence, has also been explored through the inclusion of learning disorders, which are essential for school achievement and functioning. This research has concluded that children and adolescents with specific learning disorders have impaired recognition of facial emotions when compared to a peer group without learning disorders. The emotion recognition abilities in them were independent of their global intelligence but potentially related to subjective executive functions (Francesca Felicia Operto, 2020).

2. Methodology

The study problem can be determined whether receptive nonverbal emotional manifestations contribute to the functionalization of school competence of students aged 10-11.

2.1. Purpose and Hypothesis: The purpose of this research is to examine the relationship between aspects of receptive nonverbal emotional manifestations of primary school students and some indicators of school competence. The specific goals of the research are conceptualized as follows:

P1. To examine the relationship between the aspects of the receptive nonverbal emotional manifestation components: decoding of non-verbal emotional signals from fascial

expression, from intonative expression and from bodily expression of students and indicators of school competence.

P2. To examine the contribution of the receptive nonverbal emotional manifestation components: decoding of nonverbal emotional signals from fascial expression, from intonative expression and from bodily expression of students in explaining the variance of school competence indicators.

The following research hypotheses came out of the stated goal:

H1. The decoding of non-verbal emotional signals from fascial expression, from intonative expression and from physical expression of students statistically significant and positively correlate with school competence.

H2. The components of the receptive non-verbal emotional manifestation: decoding of nonverbal emotional signals from fascial expression, from intonative expression and from bodily expression are important and positive predictors in explaining the variance of school competence indicators.

H3. Girls manifest higher emotional competencies, while boys manifest school competencies at a higher level.

2.2. Subjects: The study involved elementary school students from Tetovo (from the fourth grade). The data was collected from students of more elementary schools (N = 87). From the total number of participants, 50.6 % female (N = 47) and 49.4% (N = 40) male, aged 9 to 11 years (M = 9.37; SD = 0.506).

2.3. Measuring instruments: The test of receptive nonverbal emotional manifestation measures the capacity of decoding visual and auditory signals which reflect emotional expressions. The structure of the test of receptive nonverbal emotional manifestation is based on the model of "The receptive tests of the diagnostic analysis of nonverbal accuracy 2, DANVA2 (Nowicki, 1990)", which consists of 72 elements which present visual stimuli of facial and body language as well as auditory stimuli that transmit expressions of basic emotions, such as: happiness, sadness, fear, and anger. According to the authors, DANVA2 (Nowicki, 1990) is an instrument which consists of a high reliability with an Alpha Cronbach coefficient of 0.84, which suggests that it has internal consistency. This model was used only as a conceptual basis, while the images, more specifically photographs and audio recordings, were formulated by the authors of the study, based on similar principles of testing, and adapting it to the cultural and age aspect of the study sample.

School competences were assessed through the self-perception subscale of school competences "Self-Perception of Scholastic Profile – children's version (2012)". The total scale includes 6 items that assess children's school competencies. The authors report that the subscales used to assess socio-school competencies have a high internal consistency in the literature, where the reliability of the subscale of school competence self-perception is 0.71 (Harter).

2.4. Procedure: The application of the instruments was carried out in the second semester of the 2024/2025 school year. The start of the survey procedure was preceded by the provision of the necessary permits, technical preparation, organizational administration, etc. The survey was conducted in groups, where the students filled out the questionnaires anonymously during the psychostimulation development class. The completion of the questionnaires took about 30 minutes. The survey procedure was conducted in accordance with Research ethics: research with children and young people (2025).

3. Results

The purpose of this research is to examine the relationship between aspects of receptive nonverbal emotional manifestations of primary school students and some indicators of school competence. The students' responses to the assessment of school competences as well as non-verbal emotional receptive manifestations are presented in tabular form.

Table 1. Descriptive analysis on data of school competence and components of students' receptive nonverbal emotional manifestations (N = 87),

			Pretest M	SD
School Competence			16.854	3.713
Ability to decode nonverbal signals	from fascial expression From bodily expression from intonative expression		15.468	5.874
			10.239	3.056
			5.0625	1.816

The descriptive data from Table 1 reflect an above-average performance of school competencies and components of receptive nonverbal emotional manifestations, with an average which is above the average ranges of scales.

3.1. Relationship between aspects of students' receptive non-verbal emotional manifestation and indicators of school competence: To examine the first problem, namely the relationship between *receptive nonverbal emotional manifestation* and some indicators of school competence, a correlation analysis was performed. The results of the analysis performed are shown in Table 2.

Table 2. Correlation matrix for the School Competence Questionnaire, the total score in the Questionnaire for the assessment of receptive nonverbal emotional manifestations.

		decoding of non-verbal emotional signals from fascial expression	decoding of non-verbal emotional signals from bodily expression	decoding of non-verbal emotional signals by intonative expression
Pearson Correlation	r	0.288**	0.164	0.257*
	Sig. (2-tailed)	0.006	0.125	0.015
	N	89	89	89

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Table 2 shows that students' school competencies statistically correlate significantly and positively with the ability to decode nonverbal emotional signals from fascial expression $r=0.288$; $p<0.01$ and with the ability to decode nonverbal emotional signals from expressive intonation $r=0.257$; $p<0.05$. The correlative analysis affirmed that students' school competencies do not correlate significantly with the ability to decode nonverbal emotional signals from bodily experience $r=0.164$; $p>0.05$. According to the above results, the first hypothesis is partially confirmed.

3.2. *Contribution of the receptive nonverbal emotional manifestation of students in explaining the variance of school competence indicators:* By checking the multicollinearity indicators, it was determined that the conditions for regression analysis were met. The analysis was carried out in three steps, and the variable criterion was school competence. The variances between variables with the criterion of variability are low, which fulfills the condition for the implementation of the variance procedure. The statistical value of the Durbin Watson test of 1.503 suggests that the value lies within the range which denies the existence of autocorrelation, allowing us to believe that predictors are important in predicting the variable criterion. In order to verify the contribution of indicators of receptive nonverbal emotional manifestation: the ability to decode nonverbal emotional signals from fascial expression, from intonative expression and from bodily expression of students in the prediction of school competence, a hierarchical regression analysis was performed, the results of which are shown in Table 3.

Table 3. Results of the hierarchical regression analysis with the criterion "school competence" variable

	Predictor	Model Summary ^b		ANOVA ^a		Collinearity Statistics
		R	R Square	F	Sig.	Durbin-Watson
	Decoding of non-verbal emotional signals					
1	Fascial expression	0.280	0.078	8.062	0.006	1.549
2	Intonative expression	0.257	0.066	6.660	0.011	1.501
3	Bodily expression	0.016	0.025	2.657	0.106	1.553
4	Fascial expression Intonative expression	0.309	0.095	4.892	0.010	1.526
5	Fascial expression Intonative expression Bodily expression	0.325	0.105	3.616	0.016	1.536

The results showed that the competence to decode nonverbal emotional signals coming from fascial expression is a statistically significant predictor of school competence and explains 7.8% of the total variance. It can be seen that the increase in competence for decoding fascial expression predicts an increase in school competence. The inclusion of the competence variable for decoding the intonative expression explained an additional 1.2% of the variance, respectively in total 9.5% of the variance of school competence. The degree of competence for decoding the intonative expression showed that it significantly predicts school competence, in a positive direction. Since higher scores on the competence scale for decoding intonative expression indicate more school competence, this result was expected. Furthermore, in the third step, all three components of receptive nonverbal emotional manipulation were included. Their inclusion explained an additional 1.5% of the variance in school competence. In the case of the components of receptive nonverbal emotional manipulation, only the ability to decode the nonverbal emotional signals coming from the fascial expression turned out to be an important predictor of the school component, in the expected positive direction, which means that a higher level of development of this ability predicts higher school competence in students. The above model explained a total of 10.5% of the variance in school competence. According to the data obtained, it can be concluded that the second hypothesis has been partially confirmed.

Table 4. Beta coefficients from multiple linear regression to criterion variable school competence

Predictor variable model	Unstandardized Coefficients		t	Sig.
	B	Std. Error		
Ability to decode nonverbal emotional signals from fascial expression	0.280	0.104	2.830	0.006
Ability to decode non-verbal emotional signals from bodily exploration.	0.202	0.124	1.630	0.106
Ability to decode nonverbal emotional signals from intonative expression	0.526	0.204	2.581	0.011

a. Dependent Variable: School competence

As we can see from Table 4, predicate variables: Ability to decode nonverbal emotional signals from fascial expression ($\beta = .280$; $p < 0.01$), and the ability to decode nonverbal emotional signals from intonative expression ($\beta = .526$; $p < 0.01$) statistically contribute significantly to the explanation of the variance in the criterion variable school competence.

The results generally show that students with higher abilities to decode nonverbal emotional signals from fascial and intonative expression report higher degrees of school competence, and vice versa. Knowing the degree of manifestation of the two preachers in question makes differences between the students in the context of the representation of school competence. This does not mean that there is a cause-and-effect relationship between preachers and variable criteria, but that important preachers predict school competence in school students. On the other hand, the ability to decode nonverbal emotional signals from bodily expression ($\beta = -0.202$, $p > 0.05$) did not turn out to be an important predictor in explaining the variance of the criterion variable school competence.

3.3. Difference Between Girls and Boys in Students' Receptive Nonverbal Emotional Manifestations and School Competencies

Table 5. T-test on gender differences in the degree of manifestation of school competences and receptive non-verbal emotional manifestation.

	Gender	Mean	Std. Deviation	F	Sig.	t	Sig. (2-tailed)
School competencies	Girl	16.1064	3.76040	0.829	0.365	0.171	0.865
	Boy	15.9762	3.38928				
Receptive nonverbal emotional manifestation	Girl	29.7059	10.32723	2.353	0.128	-0.239	0.812
	Boy	30.1556	7.76342				

The data presented in Table 5 suggest that there are minimal differences in the manifestation of gender-dependent school competences, with girls $M=16.02$ having a minimally higher average than boys $M=15.98$. While on the other hand, boys $M=30.16$ manifest higher mean in emotional nonverbal receptive manifestations, $M=29.71$.

Levin's test reflected in Table 5 suggests that the variance between the two groups for school competencies ($F=0.83$; $p > 0.05$) and receptive nonverbal emotional manifestations ($F=2.35$; $p > 0.05$) is homogeneous. On the other hand, it is confirmed that there are no statistically significant differences in the variances between girls and boys for school competences

$t(87)=0.17$; $p>0.05$, as well as for receptive nonverbal emotional manifestations $t(94)=0.24$; $p>0.05$. These data consist in rejecting the third hypothesis.

4. Conclusions

Few research has addressed the importance of emotional competence for academic adaptation. In our education system, school competence is most often equated with school success or school grades.

The findings achieved in the part of the results suggest that students' school competencies correlate positively and significantly with the ability to decode nonverbal emotional signals from fascial expression and expressive intonation, so with the increase in competence to identify emotions from fascial and intonative signals, school competence also increases. These findings are supported by the emotional intelligence theory (Goleman, 1995), which emphasizes that the ability to recognize, understand and manage emotions as a potential of the individual, exceeds the abilities of general intelligence, because it significantly implicates the life of the individual. It affects the way the individual regulates relationships with others, how he forms and maintains them, because life in the collective is of vital importance (Dale F. Hay, 2005). At the same time, it reflects effects on school achievement and on the mental health of individuals. As evidenced by our results, emotional competence, defined as the ability to decode emotions from non-verbal manifestation, is significantly related to school competence, because from understanding personal emotions and those of others, we manage to form lasting relationships, as well as have higher achievements in school.

The lack of relationship between the competence to identify emotions from bodily expression and school competence can be explained by the fact that the subjects participating in the study were students, who are mainly in the developmental period (age 10-11 years), while the ability to identify emotions from non-verbal language, and especially from bodily expression which appears to be more complicated, require a greater amount of time to develop sophisticated through developmental periods. An additional explanatory factor would be the impact of the family, where the way affection is communicated in families where children grow up affects their emotional competence, e.g. expressing emotions more through fascial and intonation channels, attenuating it through bodily gestures, can be clarifying factors.

At the same time, the results from the regressive analysis emphasize that the ability to decode nonverbal emotional signals from fascial expression and the ability to decode nonverbal emotional signals from intonative expression contribute significantly to explaining the variance of school competencies, a finding which turns out to be in line with the results from Rhoades' research (2011), who emphasize that the knowledge of emotions in preschool age is an important predictor of later academic achievements, having a correlation with other cognitive characteristics such as attention. Also, the inclusion of students with specific learning disorders in the research helped to identify the role of emotion recognition in school achievement, where conversely, with the possession of learning disorders, they have impairment in the ability to recognize emotions from fascial expressions (Francesca Felicia Operto, 2020).

The differential findings, oriented towards gender, emphasized that there are no significant differences in the manifestation of school and emotional competences. These results are contradicted by the existing literature on gender stereotypes, which emphasizes that girls are more empathetic (which includes recognizing and understanding personal and collective emotions), while boys are more resourceful in their academic life (academic achievement and success).

Limitations and practical implications of research

The results obtained from this research can be very useful for improving work with students and can be used to design activities for their progress in the school context. This research has shown that there is a need to teach students appropriate ways to express and name emotions, as well as influence their understanding in order to fully fulfill their academic potential. All aspects of students' non-verbal receptive emotional manifestations can be improved and strengthened through the continuous implementation of psychostimulation programs, within the framework of additional or complementary learning at school. We propose the development and platforming of stimulative programs that are based on the development of cognitive-affective and socio-behavioral competencies, because the results of this study suggest that they have positive effects on socio-emotional competencies (Idrizi and Osmani 2025). The recommendation in question correlates with the recommendations from other researchers (Munjas Samarin & Takšić, 2009; Osmani&Spahiu, 2017), which suggest that students who participate in such programs become more engaged in the classroom, exhibit less problematic behaviors, and improve their success in school.

Schools should be the primary place for improving competencies for learning skills for recognizing, understanding, expressing emotions (especially emotions such as happiness, anger and sadness), goal setting, effective communication, altruism and empathy, competing with oneself and others, etc.

One of the limitations of the study, but also a suggestion for new studies, is the support of the results, mainly on school self-reporting competencies. The inclusion of variations such as school success, results from different competitions, etc. would enrich the mosaic of data emerging from the study in question. Also, the research used self-assessments. Due to often poorer knowledge of one's condition, assessments from peers and teachers would probably give a more realistic picture of the variables examined. The results may also have been influenced by the homogeneity of the sample examined by age (fourth grade students only).

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