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The Relationship between the Level of Self-Esteem, Cooperative Learning and Anxiety in Group Tasks in the Pandemic Context

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Abstract: Pandemic Covid-19 changed the course of education. During the pandemic, many tough measures were being taken to stop the spread of the virus, one of which is schools closure. The purpose of this study is to determine the relation between the levels of self-esteem, cooperative learning and anxiety of primary school pupils in group tasks in the pandemic context. The participants selected for this study were 110 children (45 females, 65 males) with an average age of 8 years (range 7-9 years). One of the issue that emerges from this study is the need to implement preventions activities to reduce the level of the anxiety during the pandemic context. The methods used where three test developed to analyze the main concepts of this study: The Multidimensional Test of Self-Esteem, The Raven's Progressive Matrices and SAFA. Analyzing the results, the first hypothesis was confirmed by r = -.609 which indicates a negative correlation between self-esteem and anxiety. The internal consistency index of Cronbach's alpha indicates that self-esteem and cooperative learning are correlated (α SE= 0.72, α CL= 0.79) which indicate a good internal consistency.

Keywords: *Self-Esteem; Cooperative Learning; Anxiety; Covid-19 Pandemic.*

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1. Introduction

The present study referred to three main concepts: self-esteem, cooperative learning and anxiety applied in group work of primary school pupils, which are very important because the way they interact can influence a child's development, emotional balance and well-being.

The concept of self-esteem theory encompasses diverse individual thoughts and feelings about worth, confidence, respect, efficacy and authenticity (Hewitt, 2009). Having satisfactory experiences and successful experiences increases one's self-confidence. The specialized literature define a person with self-confidence as being aware of his/her weaknesses and knowing to appraise their one's qualities (Stein, 2003). Self-esteem has different manifestation in children than adults. They show more self-esteem when they are part of a group. They complete their tasks faster, learn better from each other and the time spent together is more enjoyable. Gaining a self-esteem attitude is associated with positive mental health, positive outcomes and life satisfactions (Wang & Fowler, 2019).

Cooperation is an essential skill that helps the primary school pupils to balance his own needs with the other's needs. Cooperation in school is called cooperative- learning (Gillies, 2016). Cooperation concept is developed within the school environment because it helps the primary school pupils to adapt in order to be part of a social group. In cooperative learning, students work together to achieve a learning goal, in temporary ad-hoc groups that last few minutes and which can help students to focus their attention on material that they have to learn, ensure that students cognitively process the material being taught and provide a pleasant working atmosphere. It is the skill acquired during the school activities and it can be transferred to social activities. If collaborative-learning is well implemented it can encourage involvement and grow motivations for learning (Riviera & Cox, 2016).

Social anxiety is defined as being "an unreasonable, persistent fear of being negatively evaluated by other persons in social interactions or performances" (Carvalho, 2017). Anxiety is a very common problem in children and adolescence. The anxiety is associated with self-esteem because each pupil defines his own value according to the academic achievements. The pandemic context has led to increasing the anxiety level of the primary school pupils. They can also may present some physical symptoms such as stomachaches, tiredness or headaches. Anxiety is a feeling such as worry or fear and it is very common among the primary school pupils and it can

affect a person's general health, academic performance, behavior, well-being, eating habits and the quality of sleep (Farrer et al., 2016). They may feel anxious about a test or about the opinion of other pupils, but the pandemic made children to be worried about their health or the family safety. Schools closure and lockdown due to the prevalence of COVID-19 can have devastating effects on children's physical and mental health because (Wang et al., 2020) when they are on holidays, they rarely do physical activity and adhere to a proper sleep pattern and diet (Manson et al., 2018). The socio-sanitary context generated by the COVID 19 pandemic also required greater emotional control of adults in order to obtain a positive impact on children, the emotional regulation of influences the emotional regulation of children (Şiţoiu & Pânişoară, 2022).

One of the issue that emerges from this study is the need to implement preventions activities in order to reduce the level of the anxiety. In these educational situations was recommended as a suitable solution cooperative learning (Johnson, 2002). For cooperative-learning, the main task of a teacher is to set goals, plan and structure the tasks, and assign students into group role to work together toward a common end (Johnson & Johnson, 2009).

2. Problem statement

The pandemic situation that began in 2019 had an impact on the emotional balance of all people, especially on primary school pupils. The imminence of the danger that the virus involved, the lack of security and the limited social interaction had negative consequences on children's behavior. Online teaching was another challenge that primary school pupils had to adapt. Increasing the number of tasks involving work in pairs or groups was one of the taken measures during this period in order to reduce anxiety and to encourage self-esteem and collaborative learning. The three concepts were targeted by this study in order to determine the relationship between self-esteem, cooperative learning and anxiety.

3. Research Hypotheses

H1. There is a statistically significant correlation between the level of self-esteem, cooperative learning and anxiety at the primary school students.

H2. There is a statistically significant correlation between the level of self-esteem and cooperative learning at the primary school students.

H3. There are statistically significant different between girls and boys in terms of self-esteem, cooperative learning and anxiety level.

4. Purpose of the Study

The purpose of this study is to analyze the relationship between self-esteem, cooperative learning and anxiety at the primary school pupils in the pandemic context.

5. Research Methods

5.1. Subjects

For this study were selected 110 participants (45 females and 65 males), primary school pupils, with an average age of 8 years (range 7-9 years), that currently attend the courses of "Nicolae Iorga" Theoretical High School from Bucharest. The participants were second grade pupils from three classes of the school and they were instructed before applying the tests.

5.2. Methods

In order to assess the self-esteem The Test Multidimensionale Autostima (TMA)–Multidimensional Test of Self-Esteem was used. This test was created by Bracken in 1992 and it is used to measure the self-esteem in school and to evaluate six different scales of self-esteem (Affect, Social, Competence, Physical, Family, School).

Self Administrated Psychiatric Scales for Children and Adolescents (SAFA) is a test used to assess the school anxiety developed by Cianchetti & Fancello in 2001. It was created to identify the mental impairments in children and adolescents with age between 8 and 18 years.

Raven's Progressive Matrice (RPM) is a test which can measure general intelligence and it evaluates the developement of logical thinking. The test contains a matrix of geometric shapes.

6. Results

The colected data were processed SPSS statistical software. The main purpose of this test is to observe a statistically correlation between the three concepts discussed above: self-esteem, cooperative learning and anxiety at the primary school pupils.

H1. There is a statistically significant correlation between the level of self-esteem, cooperative learning and anxiety at the primary school students.

The interpretation of the applied test indicates a high score of „self-esteem" and „cooperative learning" but a low score of the school anxiety. With the purpose of testing the first hypothesis: "*H.1. There is a statistically*

significant correlation between the level of self-esteem, cooperative learning and anxiety at the primary school." There was applied the Pearson parametric test for statistical correlation and we introduced the results for the corresponding variables into SPSS.

Table 01 Descriptive Statistics for self-esteem, cooperative-learning and anxiety

Group Statistics	**N**	**Mean**	**Std. Deviation**	**Std. Error Mean**	**Kurtosis**	**α**
self-esteem	110	51.06	4,8973	.502	0.36	0.72
cooperative learning	110	28.06	4,243	.549	0.46	0.79
anxiety	110	20.06	3,638	.556	-0.73	0.95

Source: Authors' own conception

It can be observed, analyzing the Table 1, a statistically significant positive correlation between the levels of self-esteem and cooperative learning. A statistically negative correlation between cooperative learning and anxiety is confirmed by r=- .602. The internal consistency index of Cronbach's alpha indicates that self-esteem and cooperative learning are correlated (α_{SE}= 0.72, α_{CL}= 0.79), values higher than 0.7 indicate a good internal consistency and the fact that Kurtosis is close to 0 indicate, then a normal distribution is often assumed. This fact reveals that anxiety was significantly associated with a low self-esteem and a reduced number of activities that involve of cooperative learning. Pupils feels more anxious during activities that they are doing by themselves rather that when they are engaged in a group task.

Table 02. Results for Pearson Correlation between self-esteem and cooperative learning

		Self-esteem	**Cooperative learning**
Self-esteem	Pearson Correlation	1	.705
	Sig. (2-tailed)		.041
	N	110	110
Cooperative	Pearson Correlation	.705	1

learning	Sig. (2-tailed)	.041	
	N	110	110

Source: Authors' own conception

The variable cooperative learning is associated with the variable anxiety. Table 02 presents the results of the Pearson correlation test, with a statistically significant correlation between cooperative learning and anxiety , sig=.041, which stands for a very strong relationship between self-esteem and cooperative learning among primary school students. The value of the correlation coefficient (Pearson <0,001) and the value of r=-602 indicate that cooperative learning is hindered by the level of anxiety.

Table 03. *Res H2. There is a statistically significant correlation between the level of self-esteem and cooperative learning at the primary school students.*

Table 03 presents the results of the Pearson correlation test, with a statistically significant correlation between cooperative learning and self-esteem, sig=.041, which stands for a very strong relationship between self-esteem and cooperative learning among primary school students.

Table 03. Results for Pearson correlation between self-esteem and anxiety

		Self-esteem	**Cooperative learning**
Self-esteem	Pearson Correlation	1	-.609
	Sig. (2-tailed)		.043
	N	110	110
Anxiety	Pearson Correlation	-.609	1
	Sig. (2-tailed)	.043	
	N	110	110

Source: Authors' own conception

The data from Table 03 shows that school self-esteem and school anxiety were negative correlated because lower levels of self-esteem reinforce the anxiety. A statistically significant negative correlation between self-esteem and anxiety is confirmed by r= -.609. A negative self-perception and self-worth generate an incresing of the discomfort reactions, especially in unfavorable social contexts. These result suggest that the environmental

factors such as school, family, friends and social context may be an important source of anxiety because negative teachers or parents can generated negative informations which may suggest an insecure evironment. Moreover, the anxiety level at pupils can encrease if their parents are overcontrol, overprotective or the relationship parents-children is based on criticism and rejection.

H3. There are statistically significant different between girls and boys in terms of self-esteem, cooperative learning and anxiety level.

For testing the differents between girls and boys, it was applied the *t* parametric test for independent samples. According to Nunnally (1978), the Cronbach's *t* parametric was used for evaluating internal consistency reability of the questionnaire. The internal reability is acceptable if the Cronbach's value is larger than 0,5. As shown in Table 04, for the whole questionnaire in present research was from .951 to 2.788, all larger than 0.5.

Table 04. Results for independent samples t test for unrelated data

		Levene's Test for Equality of Variances				
		F.	**Sig.**	**t**	**df**	**Sig. (2-tailed)**
Self esteem	Equal variances assumed	.207	.636	2.637	63	.003
	Equal variances not assumed			2.637	61.01	.003
Cooperative learning	Equal variances assumed	2.901	.181	.951	63	.006
	Equal variances not assumed			.951	61.09	.006
Anxiety	Equal variances assumed	.152	.687	2.788	63	.060
	Equal variances not assumed			2.788	67.6	.060

Source: Authors' own conception

This fact indicated that the reliability of the questionnaire is acceptable.We noticed statistically diferences between girls and boys participants regarding the self-esteem and cooperative learning. The girls show a higher level of school anxiety which means that they feel more insecure about school activities and the pandemic situation increase this level. Girls feel more worried than boys and needed more emotional support from parents and teachers.

7. Discussion and conclusions

Social group and psyhical activities helps children to build and develop self-esteem. Affected by the pandemia, many countries had to suspend the classes and the learning continued online. This fact generated negative emotions and it influenced the academic progress. In all educational systems, students have to manage the increasing academic demands and they start to feel the presure of being evaluated. This represent a source of stress and anxiety. Even in an ordinary situation, PISA 2015 shows that anxiety about school activities (homework and test) is negatively related to performance in science. On average across OECD countries, boys are about 13 percentage less likely than girls to report when they feel tense when they study (OECD, 2017). Distance learning had a low interaction for the primary school pupils had a negatively impact because at their age is hard to deal with all these new rules and emotions. Analysing the results of the present research, we can conclude the following: the primary school pupils need more attention for emotional developing during the unfavorable social contexts. The lockdown and the changing the school environment affect pupils activities and their emotional balance. The information they received on the media or from the group of friends, the perspective on the new situation, the online school and the discussions with their parents played a significant role in the way the children managed to adapt. Some researches (Slavin, 2014) suggest that developing practical methods based on validated theory such as cooperative learning can produce positive outcomes in learning activities (Mustafa et al., 2020). Pupils suppose to work at social skills and cooperative behavior to integrate more easily into a group and to obtain better academic results. For encreasing their self-esteem pupils need to work in groups because in this way they can join having satisfactory experiences and being appreciated. This make pupils feel like an important part of the group and to encrease self-esteem. Increasing the number of activities that involve cooperative-learning have a beneficial influence on increasing the level of self-esteem and reducing school anxiety because

pupils get the group support. Teachers and families must colaborate to ensure a balanced emotional developement for the pupils.

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