The Value Structure of Pre-Teens at Risk of School Dropout

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Abstract: Values are connected to how a person perceives the environment and himself. We can talk about a certain dynamic of values over time. Changes in value importance occur because of the existing situations in the external environment, or due to a significant change in one’s internal motivation. The aims of our research were to determine the value structure of pre-teens at risk of school dropout, and also, to identify differences in values considering type of vulnerability, gender and depending on the geographical region. A total of 120 preadolescents (64 boys and 56 girls), in risk of school dropout, participated in the study. We used The Values Questionnaire, part of the PEDb computerized platform (created by Cognitrom), which is calibrated for the Romanian population. The results underlined that the most important values for pre-teens at risk of school dropout are related to social relations, skills development, free time and respecting rules. Significant differences between boys and girls, respectively between socially assisted students and those in which case a parent is missing, considering the value structure, were highlighted. Also, through single-factor multivariate analysis of variance important differences were noticed, when talking about free time and social relations, depending on the geographical region. Our research conclusions represent valuable resources for teachers (using student-centered learning and taking into account the value system of preadolescents, they can positively influence pre-teens’ social and educational integration), parents, and researchers, eager to better understand the value structure of students in risk of school dropout.

Keywords: values, personality, preadolescents, school dropout.

Introduction

School dropout, which occurs from secondary education to the university levels, represents a social problem in Romania (and not only), poverty, mainly in rural areas, playing a decisive role in the decision to drop out of school (Merce et al., 2015).

A person's values are integrated in his/her personality structure - personality refers to the characteristic elements, defining for a certain person, and can result from the statistical analysis of his/her actions (behaviours). Personality structures are grouped into subsystems, such as: the dynamic-energetic subsystem (temperament), the instrumental-operational subsystem (skills), the orientation and attitudinal subsystem, as well as the relational-value subsystem (character) - Mitrache and Predoiu (2016). Character is made up of a multitude of traits-values, each characteristic trait varying between 2 poles: a value and a non-value. From the point of view of a feature, each subject can be located at a certain point between the two poles. The system of these features gives the character profile.

Specialized literature underline that the interpretation and appreciation of moral values varies less depending on the culture (Christen, 2018). The parent-child (intergenerational) transmission of values has been studied, authors emphasizing that different types of family groups result in high or low transmission of values (e.g., religious values) (Luria & Katz, 2020). Personally held values - we saw that family (and education) have a decisive impact in shaping the value system of a person - are influencing people’s awareness of the practices/ways of the world (Hansson et al., 2010).

Knowing and exploring a person's values contributes to facilitating the process of self-knowledge, influencing also career development (Rounds & Armstrong, 2005). For example, persons having high intrinsic value orientation and having high scores on extraversion (being sociable, communicative, open) are more likely to choose arts/humanities areas of study. In contrast, persons having extrinsic value orientation and high results on neuroticism tend to choose for business/technical academic stream (Berring et al., 2018). Considering age, it seems that older people value more collective values, while younger participants value more individual values (Pantaléon et al., 2019). Different studies asserted that age positively correlates with conservation values (tradition, security, conformity), and negatively correlates with openness values - stimulation, hedonism, self-direction (Milfont et al., 2016; Robinson, 2013; Caprara et al., 2003). Also,
younger people values did not reflect motivational conflicts which usually are reported in values study (Foad et al., 2020).

Values are context-determined, intertwined and connected to how a person perceives the environment and himself (Horlings, 2015). In sport domain (e.g., in martial arts), specialist's behavior, together with explicit teaching and praise given influences the process of value formation (Kim, 2020). Researchers found, also, that values better predict attitudes, behaviors for distant future circumstances than near future situations (Eyal et al., 2009).

In order to delimit as clearly as possible what a value represents, we conceptualize the values according to the perspective proposed by Schwartz (Schwartz, 1996, Bardi & Schwartz, 2003; Schwartz, 2006) Therefore:

• Values are beliefs connected by emotions and related to certain behaviours;
• Values guide the selection or evaluation of actions, people or events. This means that the values serve as standards or evaluation criteria;
• Values are motivational constructs and refer to desirable goals that people want to achieve;
• Values are organized based on relative importance, by relating to other values. People's values are organized in a hierarchical system of priorities, which characterize an individual. This aspect differentiates them from norms and attitudes;
• The relative importance of a set of relevant values guides a person's actions;
• Values are stable in relation to situations and contexts - we mention that when people are facing situations that force adaptation, personal change, some values may vary to some degree (Rudnev, 2014; Bardi et al., 2009), but even if the importance and the hierarchy of values may change, the value system/structure is maintained (Vecchione et al., 2016).

Values are cognitive representations, involving: 1) societal demands for group survival, 2) biological needs, 3) interactional requirements for interpersonal development (Schwartz & Bilsky, 1987). Values suppose/account more variance in macro worries (about world and society) than in micro worries (about self) (Schwartz et al., 2000).

In 2004, Schwartz and Boehnke statistically tested, for the first time, a theory considering the structure of human values. It seems that there are ten basic values (e.g., achievement, power, hedonism, tradition, security, conformity etc.), which can be discriminated regardless the society (10,857 participants, from 27 countries, were investigated). Authors mention, also, that values form a motivational continuum. In the next year, Schwartz
(together with Rubel), investigating 77,528 participants (from 70 countries) emphasize that for women, benevolence and universalism values are more important (than for men), while hedonism, power, achievement or stimulation values are more important for men than women. No gender differences in value priorities were observed on conformity and tradition values.

Self-assessment of values contributes to: a) *clarification* of those aspects that the person considers to be of the greatest importance to him/herself; b) *awareness* of some dimensions related to the way in which the person relates to him/herself, to others and to different situations or events; c) *comparison* between several categories of personal values, which are more or less important for the person, thus highlighting the interaction or conflict between his/her values (Super & Sverko, 1995). We also specify that the identification of the value system in the case of students (and not only) facilitates personal development, the formation of personality at maximum levels - teachers can update students’ potential. In the context in which the teaching act takes into account the students' values, we can certainly talk about a beneficial impact for preadolescents and adolescents, in terms of social and educational integration.

We make the distinction between socialization values and personal values. For example, in the case of teachers, openness to change was identified more as a socialization than as a personal value (Tamm et al., 2020).

Along the time, researchers investigated the impact of Christian values in education, the existing moral conflicts in secondary schools, the values of adolescents across cultures or the effect of religious affiliation on educational expectations (Elton-Chalcraft & Cammack, 2020; Hedayati et al., 2019; Simmons, 1999; Hemmerechts et al., 2018). A gap in the literature can be noticed when talking about the value structure of pre-teens in risk of school dropout.

**Methodology**

**Scope**

The goals of our research were to identify the value system of preadolescents at risk of school dropout, and also to determine differences in values considering type of vulnerability, gender and depending on the geographical region.
Research questions

Starting from McGarry et al. (2021) which mention that due to the limited specialized literature considering a research field hypotheses are not recommended, the following research questions (regarding the value structure of preadolescents at risk of early school leaving) were put forward:

1) Which are the most important values for pre-teens at risk of school dropout?

2) Which are the differences in values considering the type of vulnerability, gender and depending on the geographical region in Romania?

Methods

In the research we used the bibliographic study method, the survey method - questionnaire, the statistical-mathematical method and the experimental method (quasi-experiment).

Documentation represents the first stage of the research activity, which forms the basis for the development of any research project and it involved consulting numerous bibliographical sources, research papers, and then selecting the proper material according to interest, clarity and novelty in the field (Predoiu, 2021). The survey method can be described (Beatty et al., 2020) as a system for collecting information that allows knowledge, attitudes or behavior to be described, compared or explained. Briefly defined, a questionnaire is a set of standardised questions designed to elicit information from a subject/group of participants (Gratton & Jones, 2010).

The statistical-mathematical method is based on the statistical decision theory, statistics being a science of optimal decisions (Bacci & Chiandotto, 2020) and it is used in research mainly in order to draw (from the study of mass phenomena), connections and correlations between variables, meanings of the results obtained in relation to certain samples, to anticipate the evolution of known parameters.

The current study was carried out using a quasi-experiment, which is designed to integrate all the research techniques and methods used (Thyer, 2010) in order to answer to the research question of the study. In quasi-experiments, the researcher generally only observes the relationship between the independent and dependent variable, but has not manipulated them in any way. We used, in our research, the ex post facto quasi-experimental model - in this model neither the groups under analysis are controlled nor the intervention/treatment (Brannon & Feist, 2010).
Participants

One hundred and twenty pre-teens (64 boys and 56 girls), in risk of school dropout, took part in the study. The participants (randomly selected) are students (in the VI, VII or VIII grade) at five schools in Romania - one in Bucharest \((n = 46)\), three in Vaslui county \((n = 56)\) and one school in Mehedinți county \((n = 18)\), with an average age of 13.2 years. Depending on the type of vulnerability we notice: 92 pre-teens socially assisted (including 13 Roma people) and 28 preadolescents in which case a parent is missing (18 pre-teens have a parent who works abroad, 7 students come from disorganized families, and 3 from single-parent families).

Instruments

The Value Questionnaire is part of the PEDb computerized platform (created by Cognitrom company), being calibrated for the Romanian population (for example, in terms of questionnaire fidelity, the value of the Alfa Cronbach internal consistency coefficient, for each target dimension, varies between 0.605 and 0.783 - which indicates a good internal consistency). The process of developing the questionnaire integrated the analysis of theoretical value models (Rounds & Armstrong, 2005).

The questionnaire consists of 9 scales, which represent 9 values, each scale comprising four items. In total, there are 36 items. A symmetrical manner of wording was chosen, emphasizing the criterion of subjective importance in the evaluation of values (Super & Sveko, 1996; Schwartz & Boehnke, 2004; Schwartz & Rubel, 2005). Therefore, each item contains two components, organized symmetrically. The first sentence begins for all items with the wording "Consider it is important to ...". This segment presents the general aspects, related to a certain value. The second sentence begins, for all items, with the wording “He/ she likes to…” and has the role of exemplifying guidance towards actions, towards him/ herself or towards others. Items are evaluated starting from the method used by Schwartz in the Portrait Values Questionnaire (Schwartz, 2004). Participants are asked to rate how much they believe they resemble the person described in each item. This evaluation was performed on a Likert type scale of 1 to 5, where 1 = Resembles me to a very small extent, 2 = Resembles me a little, 3 = Resembles me to a certain extent, 4 = Resembles me a lot, 5 = Resembles me to a great extent. The maximum score for each scale is 20 and the minimum is 4. The value with the highest score is considered to be the best developed.

The nine scales/ values are:
1) Skills development - for such a person, it is important to develop and capitalize on their interests, abilities and skills, to the extent that they are satisfied with it and are convinced that they perform activities at a high level.

2) Social relations - for such a person, it is important to focus on building, developing and maintaining pleasant, uncompetitive relationships with the people he comes in contact with at school, at work or in any other field.

3) Free time - for such a person, it is important to systematically carry out recreational activities or hobbies, which he/she integrates into their weekly schedule and carries out with pleasure.

4) Professional recognition - for such a person, it is important to be respected and admired by others and considers that, in order to accomplish this, he/she must be competent in his/her field of activity.

5) Autonomy - for such a person, it is important to have great freedom and diversity in actions, to make decisions and make plans according to his/her own standards (as they deem fit).

6) Authority - for such a person, it is important to have the opportunity to lead others, to make decisions and to take responsibility for his/her work and for the work of others; he/she likes to have influence and authority over the people he/she works with.

7) Challenge - for such a person, it is important to look for risky activities, with a high level of complexity of planning, implementation and monitoring strategies.

8) Compliance with the rules - for such a person, it is important to organize and carry out activities according to rules clearly established by others (family, organizations, society).

9) Security/ safety - for such a person, it is important to look for and perform activities in which he/she knows exactly what is going to happen, what are the factors involved, what to do and what are the consequences.

Procedure

The preadolescents completed The Values Questionnaire between July 2020 and February 2021. Due to the COVID-19 pandemic, the research was conducted both face to face (in Bucharest), by phone (in this case, the test was performed individually - in Bucharest, Mehedinți and in one school from Vaslui county) or online - via google meet. In this situation (google meet), the application of the questionnaire was performed in groups of 3 to 10 students (in two of the three schools from Vaslui county). The participants were randomly selected, corresponding to the following inclusion criteria - pre-teens from vulnerable groups (socially assisted, Roma
people - socially assisted, having a parent who works abroad, pre-teens from disorganized families or from single-parent families). Considering the ethical principles - students could withdraw at any time (were informed of the withdrawing possibility), the anonymity of the students was ensured, as well as the confidentiality of the data, the participants gave their informed consent (the parents of the pre-teens involved) for participating in the study. We would like to give a special thanks to the physical education and sport teachers from Bucharest and Vaslui county, which allowed us to interact directly (face to face or online) with the preadolescents. The Value Questionnaire was applied by two of the authors of the present study, following direct contact with students.

*Cross-sectional and ex-post facto design*

The results registered by students in the case of the nine values represent the dependent variables (DVs), while the membership of pre-teens in one of the three groups - “Bucharest county” (southeast region), “Vaslui county” (northeast region) and “Mehedinți county” (southwest region) play the role of the independent variable (IV). Also, as IVs (play the role of IV), in our paper, we mention the membership of pre-teens in one of the following groups: "socially assisted" or "with an absent parent", respectively “boys” and “girls”.

*Data analysis*

First, independent t test was performed and the Hedge’s g value (effect size) was calculated (Predoiu, 2021) in the case of the differences between boys and girls, respectively between socially assisted preadolescents and those in which case a parent is missing (from the point of view of the value system). Then, using single-factor multivariate analysis of variance the value structure of preadolescents was investigated, depending on the geographical region in Romania. The Box M test was calculated and also the observed power and the effect size (Partial Eta Squared), while according to the Levene’s test results (homogeneity of variance) the Scheffe test was interpreted - post-hoc test (Popa, 2010). SPSS 20 was used.

*Results*

In the first phase, we present the value structure of preadolescents at risk of early school leaving, globally.
Table 1. Descriptive statistics - pre-teens in risk of school dropout

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>free time</td>
<td>79.72</td>
<td>13.156</td>
</tr>
<tr>
<td>respecting rules</td>
<td>79.33</td>
<td>13.534</td>
</tr>
<tr>
<td>professional recognition</td>
<td>74.71</td>
<td>15.247</td>
</tr>
<tr>
<td>social relations</td>
<td>83.63</td>
<td>12.451</td>
</tr>
<tr>
<td>security</td>
<td>66.25</td>
<td>14.799</td>
</tr>
<tr>
<td>autonomy</td>
<td>78.33</td>
<td>13.983</td>
</tr>
<tr>
<td>skills development</td>
<td>79.33</td>
<td>12.898</td>
</tr>
<tr>
<td>challenge</td>
<td>74.00</td>
<td>13.262</td>
</tr>
<tr>
<td>authority</td>
<td>59.67</td>
<td>18.354</td>
</tr>
</tbody>
</table>

Source: Authors' own conception

Analyzing Table 1 we can see that the most important values for students at risk of school dropout are related to: social relations, free time, skills development and respecting rules. Instead, the least valued aspects refer to authority and security.

The next step was to verify the existence of significant differences between boys and girls, respectively between socially assisted students and those in which case a parent is absent, from the point of view of the value structure (the nine values were investigated).

We highlight that the mean result for skills development is significantly higher \([t(118) = -2.046, p = 0.040]\) in girls \((M_{girls} = 81.88, SD = 10.93)\) compared to boys \((M_{boys} = 77.11, SD = 14.10)\). The Hedge’s \(g\) value (effect size) is 0.37, which reflects a moderate to small difference (Predoiu, 2020) between the results (for skills development). The confidence interval is comprised between -9.302 (lower limit) and -0.229 (upper limit). We emphasize also a difference between boys \((M_{boys} = 62.89, SD = 15.80)\) and girls \((M_{girls} = 55.98, SD = 20.41)\) considering authority \([t(108) = 2.086, p = 0.039]\). The effect size index (Hedge’s \(g = 0.38\)) asserts a moderate to small difference between the results. The upper limit is 13.46, whereas the lower limit is 0.350.

Referring to the other seven values investigated, no significant differences were observed according to the gender.

When analyzing the differences between socially assisted pre-teens and those in which case a parent is missing (in terms of values), we observed a significant difference only when talking about security. The students in which case a parent is missing recorded a significantly higher score for security \([t(118) = -2.083, p = 0.039]\), by comparison with socially assisted...
preadolescents ($M_{\text{missing parent}} = 70.89, SD = 15.27; M_{\text{socially assisted}} = 64.35, SD = 14.33$). The Hedge’s $g$ value is 0.45, which reflects a moderate difference between the scores. The upper limit is -0.322, whereas the lower limit is -12.76.

Not least, we wanted to identify if there are significant differences considering the value structure of students, depending on the geographical region. Through one-way MANOVA we checked these differences (type I procedure was used, SPSS 20). The nine dependent variables (DV$s$) positively correlate with each other - but there are weak or moderate associations, linearity assumption being asserted. The Box M test is insignificant ($p = 0.152$), therefore, we referred to the Wilks’ Lambda test values. A significant relation was found between the “geographical region” factor and the combination of the dependent variables. We observed a difference between the value system of students in risk of school dropout, from various regions of Romania: $F(18, 218) = 1.913$, $p = 0.016$; Wilks’ Lambda = 0.746; partial $\eta^2 = 0.136$. Considering the high Observed Power (over 0.965) and the high effect size (Partial Eta Squared) there is a good level of confidence in the obtained results. Referring to the structure of students' values, the geographical region has a significant connection only with free time ($p = 0.002$) and social relations ($p = 0.012$). We mention that the results of the Levene’s test (homogeneity of variance) are insignificant ($p > 0.05$), so we interpreted the Scheffe test. Therefore, after running univariate one-way ANOVAs (post-hoc tests), we emphasized the following significant differences: for free time ($p = 0.002$), between students from Bucharest and those from Vaslui county ($M_{\text{Bucharest}} = 84.78, SD = 11.00; M_{\text{Vaslui}} = 75.55, SD = 13.60$) and for social relations ($p = 0.014$), between students from Mehedinți county and those from Vaslui county ($M_{\text{Mehedinți}} = 90.56, SD = 11.36; M_{\text{Vaslui}} = 80.80, SD = 13.54$). We can argue that students in risk of school dropout from Bucharest value (significantly more) free time, while for pre-teens from Mehedinți county social relations are significantly more important.

**Conclusion**

The purposes of our study were to investigate the value system of pre-teens at risk of school dropout, and also to determine differences in values, taking into account gender, type of vulnerability and geographical region.

In a first phase, we highlighted the most (and the less) important values for pre-teens at risk of school dropout. We found that the most important values are related to social relations, free time, skills development
and respecting rules. In other words, for preadolescents at risk of school dropout is very important to have pleasant, uncompetitive relations with other people, at school, but also in everyday life settings. Also, pre-teens value more to develop skills (for them, is important to be satisfied with their abilities), they appreciate when activities are realized according to well-established rules and they like to have time to carry out recreational activities or hobbies. Regarding the least valued aspects, we can talk about authority and security. For pre-teens at risk of school dropout it is less important to lead others, to have influence and authority over people, to make decisions for them or to get involved in activities in which they know exactly what is going to happen, what the consequences are.

When analyzing the differences between boys and girls, we emphasized that girls give significantly more importance to skill development, compared to boys, while boys value significantly more authority - to be able to influence others and make decisions for them.

We observed also that pre-teens in which case a parent is missing recorded a significantly higher score for security, by comparison with socially assisted students. Therefore, for these students is important to know which are the factors involved in an activity or situation and what they have to do - they don’t like surprises or uncertain situations (they prefer to get involved in activities in which they know exactly what is going to happen). A missing parent in pre-teens lives could generate this need for a better control regarding people and situations (this need is more pronounced in anxious people - and anxiety is one of the effects of missing parents).

Knowing the above characteristics considering the value system of pre-teens at risk of social exclusion (according to gender and type of vulnerability), teachers, psychologists, parents, significant adults in the lives of pre-teens can intervene, meeting children’s needs for skills development, social relation, security and, also, by relating to success or failure (at school and in everyday life settings) without comparing children with others. In a pandemic situation, when many efforts (which required face-to-face interaction) have been put on hold, the work of specialists becomes even more difficult. Using various remote work software platforms (when physical contact is prohibited) can help in the process of personal development of pre-teens at risk of school dropout (and not only).

The next step consisted in verifying the existence of differences in the value system of preadolescents, according to the geographical region. We found that pre-teens from Bucharest value significantly more the free time, than students from Vaslui county. Thus, in their case, time for recreational activities and hobbies is significantly more important. We highlighted, also,
that pre-teens from Mehedinti county value significantly more social relations, by comparison with preadolescents from Vaslui county. We can explain these results through the fact that almost 62% from students investigated in Mehedinti county are pre-teens in which case a parent is missing (unlike 23% of preadolescents - in this situation, investigated in Vaslui county). This context may explain the highest need for positive, pleasant relations with others (in the case of pre-teens investigated in Mehedinti county).

The following limitations are raised: the relatively small sample of participants investigated in Mehedinti county, age and type of vulnerability (the value structure could be different if teens would be investigated or larger samples of students having the same type of vulnerability). Also, some results could be better explained after in-depth interviews with pre-teens, finding, for example, the reasons why some preadolescents value significantly more the free time. This process involves face-to-face discussions (in the ideal case), a particularly difficult aspect to achieve in a period when we all fight with an invisible opponent - COVID-19, and the activity at school is realized face to face only temporarily. Future studies are required, continuing the process of understanding the value structure of pre-teens at risk of school dropout. The current study provides important data to national and international specialists, increasing awareness regarding the value system of pre-teens at risk of social exclusion (a less investigated topic). Data on the most and least important values for pre-teens at risk of school dropout are essential, also, in the post crisis situation, in the practice of education, for the personal development of children and in order to increase their quality of life.

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Authors’ Contributions

All authors have equally contributed to this research.
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