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The Non-Cognitive Variables of the Students’ Attitude towards Learning

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Abstract

The objectives of the present research have been to determine the students’ attitude towards learning and school performance, to establish the relation between the following variables: age category, residentship, and the students’ attitude towards learning and school performance. We will present the results obtained from a lot of 200 of subjects, students at various faculties of Dunărea de Jos University of Galați, Romania. The results we have obtained suggest a greater motivation for the students who come from rural areas, than the ones from the urban area. We must point out that the majority of the students over 40 years come from the rural area, which results in a significant correlation between attitude towards learning, age and residentship.

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1. Introduction

There are numerous studies in the literature in the field, which attempt at clarifying the issue of school learning and of the mechanisms, which determine school performance. The research studies conducted have had in view pupils, as well as young and adult students, male and female. Most of these studies have identified both the cognitive and non-cognitive variables, which determine the individuals’ attitude towards the learning process and their mentality in general. In this respect, the results obtained by Brazdău, O. and Mihai, C. (2011) have proven that the students’ Consciousness Quotient (CQ) and their Intelligence Quotient (IQ) are completely different

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psychological constructs (CQ represents a non-cognitive predictor for academic performance). The differences occur in the performance area. Thus, it is more probable for the students with a higher IQ to achieve better performance. The same way, the students with a higher CQ can obtain better results in examinations than the ones with a lower CQ. When discussing performance, the statistical analyses reveal a correlation between the IQ and the CQ. Nevertheless, the IQ is a more relevant predictor. Other studies establish a strong relationship between performance and the motivation for the learning activity, the difference being in the effort one makes (Artino & Stephens, 2009). Analysing this report, Linnenbrink and Pintrich (2002) consider that the relation between motivation and knowledge is strongly influenced by a series of variables, such as: the individuals’ previous accomplishment, social aspects, the individuals’ values and expectations, as well as cognitive variables: knowledge, meta-cognitive strategies, the ability of activity self-regulation. Colquitt et al (2000) point out that the learning motivation determines performance directly. Thus, the employers who have a high motivation level acquire better performance than the ones less motivated. An important variable is the ability of self-regulation. In this respect, Pintrich (1990) considers that learning becomes an active and systematic process in which the individuals must set goals and control their behaviour and motivation.

Bandura (1982), in turn, places the learning activity in relation with self-efficiency. The latter determines the effort and perseverance in setting goals. It refers to the self-confidence of the individuals, in their ability to complete a task. Performance and the attitude towards learning are determined by the value attributed to learning by the individual (Eccles & Wigfield, 2002). The valorization of learning is a stimulent. Thus, the researchers claim, an activity’s value has four components: the desire to complete the task, the interest and the joy for completing the task, the usefulness of the task and the fear of failure.

Other studies (Garkaz, M. et al, 2011) indicate that the subjects who are financially independent acquire greater academic performance than the ones who do not have a job. The attitude towards learning is also directly related to age. The studies conducted in this respect have proven that the older subjects answer better or at least as well to assignments than their younger colleagues (Kasworm, 1990). Although the changes in the cognitive development at the adult age can influence performance negatively, some studies have indicated that the adult subjects approach the learning activity more thoroughly, while the younger students tend to be more superficial (Richardson, 1995).

2. Research Design

2.1. Objectives and hypotheses

Starting from the results of the studies in the literature in the field, the objectives of the present research have been:

a) to determine the students’ attitude towards learning and school performance;
b) to establish the relation between the following variables: age category, residentship, and the students’ attitude towards learning and school performance.

In order to render these objectives operational, we have started from the following assumptions:

1. There are significant differences determined by residentship in what the students’ attitude towards learning and performance is concerned;
2. There are significant differences determined by age in what the students’ attitude towards learning and performance is concerned.

2.2. Methodology (subjects, procedure, instruments)

Mention should be made that the research has been empirical and has not aimed at experimental manipulation. Although the research is still in progress, we will present the results obtained from a lot of 200 of subjects, students at various faculties of Dunărea de Jos University of Galați, Romania. Considering the age variable, the subjects lot consists of 74 students between 18 and 25 years, 60 students between 26 and 40 years and 66 students over 40 years. Considering the residentship variable, the subjects lot consists of 105 subjects from the urban area and 95 subjects...
from the rural area. The average age of the subjects involved in the research is 27.7 years. During the present research, the following variables have been considered:

- **students’ attitude towards learning** - which we have defined as an attitude visible in the individual behaviour, marked by cognitive-affective restructuring, with reference to performance and to the learning process.
- **residentship** (urban, rural);
- **age** (three categories: 18-25 years; 26-40 years; over 40 years).

In order to measure the students’ attitude towards learning, we have applied the „Attitude towards learning” questionnaire. The final version of the questionnaire comprises 20 items, structured on three dimensions: personal involvement, purpose and personal accomplishment. The response choices are from 1 to 7, where 1 = complete disagreement, and 7 = complete agreement. The subjects who score high in this questionnaire consider learning as the only way to achieve success and get accomplished. The Cronbach-Alpha coefficient for the entire questionnaire is $\alpha = 0.73$.

The statistical processing of the results has been conducted with the help of the SPSS 13 software. The statistical operations carried out have been:

- frequency analysis for determining the composition of the subjects lot;
- mean calculation for the attitude towards learning variable;
- factorial analysis for establishing the factorial validity of the questionnaire;
- The Cronbach-alpha consistency coefficient for establishing the questionnaire’s fidelity;
- The Shapiro-Wilk test for verifying the normality of distribution of the attitude towards learning variable;
- ANOVA one-way for verifying the age category variable’s influence over the attitude towards learning variable;
- the independent samples t test for comparing the mean obtained for the dependent variable attitude towards learning in reference to the age category variable;
- the independent samples t test for comparing the mean obtained for the dependent variable attitude towards learning in reference to the residentship variable;

### 2.3. Data processing and analysis. Results

H1. In order to verify whether the students’ attitude towards learning and school performance is determined by residentship, we have applied the independent samples t test. Judging by the results obtained, we note significant differences based on residentship in what the students’ attitude towards the learning activity is concerned [$t (198) = -8.085$, $p < 0.05$]. The results are illustrated in the table below.

<table>
<thead>
<tr>
<th>Variables</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attitude towards learning</td>
<td></td>
<td></td>
<td></td>
<td>-8.085</td>
<td>198</td>
<td>0.00</td>
</tr>
<tr>
<td>Urban</td>
<td>105</td>
<td>3.61</td>
<td>0.44517</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rural</td>
<td>95</td>
<td>4.03</td>
<td>0.24575</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Therefore, the subjects who come from rural areas tend to score significantly higher in attitude towards learning ($M_1 = 4.03$), than the subjects from urban areas ($M_2 = 3.61$). The results obtained entitle us to assert that the first hypothesis is valid.

H2. In order to verify whether the students’ attitude towards learning and school performance is determined by age, we have applied the ANOVA one-way method. As there are three categories, we have first verified the condition of the normality of distribution for the attitude towards learning variable, for each age category. The results of the Shapiro-Wilk test are statistically insignificant. Therefore, the attitude towards learning variable is normally distributed for the three age categories. Having fulfilled this condition, we could apply the ANOVA
technique. Based on the statistical analyses, we have noted that there are significant differences in relation to the age category in what the students’ attitude towards learning is concerned \( F (2, 197) = 6.642, p < 0.05 \). In order to observe between which age categories are the differences significant, we have applied the independent samples \( t \) test. The results obtained are presented below:

- There are no significant differences between the students from 18 to 25 years and the students from 26 to 40 years in what the attitude towards learning is concerned \( t (132) = 1.204, p = .231 \);
- There are significant differences between the students from 18 to 25 years and the students over 40 years \( t (138) = -3.012, p < 0.05 \), in the sense that the latter consider to a greater extent that accomplishment is determined by sustained learning;
- There are significant differences between the students from 26 to 40 years and the students over 40 years \( t (124) = -3.159, p < 0.05 \), in the sense that the former lay less emphasis on the learning activity than the latter.

The results are illustrated in the chart below.

![Fig. 1. Comparison of the means for the attitude towards learning variable in reference to the age category variable](image)

Analysing the results, we can assert that the second hypothesis of the present study is also valid: indeed, the students’ attitude towards learning is determined by their age category.

3. Conclusions

The main objective of the present research was to establish the relation between the age and residentship variables with the students’ attitude towards learning and school performance. In what the relation between age and attitude towards learning is concerned, the results obtained confirm Richardson’s research (1995). Thus, we have noted that students lay more emphasis on the learning activity with their ageing. The adults involved in our research are either hired in education or they have other jobs. This is why we believe that the relate school performance with job performance, being more motivated. They put the social and professional status in relation with the desire to accomplish the work tasks correctly and the desire to succeed. At the opposite end, the youths are more superficial, they valorize the learning activity less and have a more diminished sense of personal efficiency.

In what the relation between the attitude towards learning and residentship is concerned, the results we have obtained suggest a greater motivation for the students who come from rural areas, than the ones from the urban area. The majority of the students coming from the rural area claim that they learn in order to obtain independence and consider learning as a variable of personal accomplishment, the only one which can trigger success. We must point
out that the majority of the students over 40 years come from the rural area, which results in a significant correlation between attitude towards learning, age and residentship.

Our research has its limitations. One of them concerns the fact that the subjects lot is insignificant in relation with the number of students at “Dunărea de Jos” University of Galați, Romania. This is the reason why we cannot extrapolate the results for the entire students population. We must specify also that the present research is just the first step in a more thorough study which we intend to carry on and which will emphasise multiple correlations between various aspects concerning the learning process and the academic performance.

References