

Influence of Gender and Socioeconomic Status on the Motivation towards Learning in Children of Early Childhood Education

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Abstract

Gender and socioeconomic status are aspects that have influenced students' motivation, affecting their academic performance, above all, in the early years of life. Therefore, this work aims to know how gender factors and socio-economic level affect the academic motivation of kindergarten pupils from 2 to 3 years. To accomplish it, a specific questionnaire was developed. It measures motivation through a test adapted to the level and evolutionary characteristics of the sample. As results it was obtained that there were no significant differences in gender. The best motivational results in most of the motivational determinants studied were of the average and high socioeconomic level, highlighting the attributions above the other factors. As a conclusion, it has been established that at young ages, the gender factor is not decisive at the motivational level. On the other hand, this research follows the path of the results of previous research, establishing that socioeconomic level is a determining factor from an early age.

Keywords: *motivation, socioeconomic level, kindergarden, factors.*

1. Introduction

The health emergency situation that plagues the world, due to covid-19, has made more evident the social differences between the different socio-economic levels [1]. Access to basic services, such as health, food or education, has been completely unequal depending on the purchasing power available to the family unit prior to the pandemic. This has been one of the most relevant problems facing society, so that all citizens can access minimum services that ensure their well-being [2].

In addition, there are gender differences that have existed in society since the beginning of time, which have been evident and have marked the development of history [3]. Women have historically been relegated to the background, significantly affecting their presence in education, especially at higher levels. Currently, this gender gap is becoming smaller [4], but it is also necessary to consider whether these women's academic motivation affects their presence and results at the educational level.

The handicap, which implies lack of access to resources for many low socioeconomic students, has affected their academic performance [5,6 and 7]. Moreover, this is aggravated in many cases when the student's gender is female, since in many societies it is understood that women must attend other functions before education, so they are not formed academically [8].

As a result of the above, different educational aspects, can be affected. That is the case of motivation for learning, a concept widely studied in relation to different variables, such as the socioeconomic level of the family, gender and how these variables affect the different motivational determinants. The relationship with socioeconomic level has been found at different educational levels, from Early Childhood Education to Secondary Education. Results in this field demonstrate that, in most cases, influence is shown from one factor to the other [9], as well as a greater motivation of the female gender towards the male one [10]. The importance of these aspects is greater in the childhood period, as this is a primary period for the integral development of the student and for its influence in the course of the different educational levels [11].

Regarding the socioeconomic level, a study comparing self-esteem with socioeconomic level, in children between 3 and 7 years old, finds better results at low and medium socioeconomic level compared to a high socioeconomic level [12]. Some years later, variables were studied once again, through the EDINA Questionnaire. It statistically demonstrated significant

correlations between academic performance, age, sex, socioeconomic status and some dimensions of self-esteem. Best results turned up in the high socioeconomic level [13]. One year later, a similar study was carried out, confirming last investigation results [14].

Gender motivation comparison has been a premise studied in a large number of researches, but has been studied very superficially at primary educational levels. A 6-month-old babies and their mothers investigation, stand out for the short age of the show, resulting in a better motivational expressiveness in boys above girls [15]. In the same line, other researchers studied the motivation of 2-8-year-old children which they believed being behavioral inducers by child caregivers. Results in women, generally cause significantly higher scores in the academic performance in comparison with men [16].

It has also been studied gender differences in motivation, setting out that gender differences in motivation are evident in school from an early age, and increase as they go through different educational stages [17]. Also, another investigation studied the mastery of motivation in a study aimed at investigating the stability of dominance motivation between the ages of 2 and 3 for both sexes, where the results were that the stability of girls was greater than boys [18]. Also continued along the same line, the study on the mastery of motivation from 2 to 8 years in relation to academic performance was measured longitudinally, with only significant relationships to academic performance in girls [19].

All the research described shows an influence, whether direct or indirect, on the socioeconomic level of the attendance school or the student's own family and gender, on certain motivational or other aspects that may affect this motivation. That will be a relevant aspect to consider, knowing the great importance that this factor has at the educational level, either for performance or for any other aspect that affects the integral development of the student.

Objective of the study

The objective of this study is integrated into broader research where the motivation towards first-cycle learning of Early Childhood Education is studied, to know the motivational characteristics of this age range. In this way, the purpose of this research is to check whether the socioeconomic level (high, medium and low) and gender of students influences academic motivation in students from 2 to 3 years old who are pupils in nurseries of the León city (Spain) and its surrounding area.

2. Methodology

Participants

This study involved 17 kindergartens in Spain with a total sample of 435 students aged between 2 and 3 years. Within the exhibition we can differentiate 84 pupils of high socioeconomic centers, 190 pupils of mid-socioeconomic centers and 161 pupils of low socioeconomic centers. In relation with gender, 220 were boys and 215 were girls.

Instrument

Due to the absence of assessment tests to measure academic motivation in First Child Education Students, a properly validated test was developed. This instrument called EMAPI measures child academic motivation based on its determinants (beliefs and expectations, levels of demand, attributions and value), with a methodology according to the characteristics of the sample.

Motivation was assessed through 4 determinants: beliefs and expectations, value, requirement levels, attributions. In order to measure each of these determinants, a different number of items were proposed, so that the test was short and will not tire the children. Altogether, the questionnaire consists of 22 items. Firstly, to measure the decisive beliefs and expectations determinant, 7 different items (3 self-concept, 2 self-esteem, 2 of self-efficacy) were used. Secondly, 4 different items were used to evaluate the value factor. Then, in the case of the requirement levels, 3 items were used (compared to previous

realizations, comparison with my colleagues, comparison with the teacher's standards) and finally, for the attributions 8 items were used (2 capacity, 2 effort, 2 lucky and 2 difficulty).

Items are presented through an illustrated part and its corresponding text, where the form of response is clearly differentiated between the attributions section and the sections levels of demand, value and beliefs and expectations. The attributions section consists of a single illustration that is answered with a YES (smiling face) or NO (sad face); in the other three sections, two graphic options are shown and the child must choose between one or the other, understanding that one option is more positive, motivationally speaking, than the other.

Procedure

As a result of the absence of tests, in order to measure child academic motivation in first-cycle students, it was decided to create a questionnaire according to the psychoevolutionary characteristics of the subjects involved in the research. In the following months, the EMAPI evaluation instrument was developed, taking into account the criteria that have been described throughout the methodological framework.

For the administration of the different questionnaires to students it was decided that only one person should attend the schools, the same one who collected the data, which facilitated unanimity of criteria when establishing the different responses of the students. The rules of application, correctness and interpretation of the responses were a clear and constant premise throughout the administration of the test to students.

Finally, the different analyses were carried out on the basis of the results obtained with the administration of the questionnaires to the participants. These analyses make it possible to see the motivational characteristics of children in this cycle, taking into account the different motivational profiles depending on the socioeconomic level of the Child Education Center for student attendance.

Data analysis

The IBM SPSS Statistics 21.0 program was used for statistical analysis. The value acquired by Cronbach alpha for all variables is 0.837. It matches with the high reliability of the instrument, identifying as a reliable test, since the value is between 0.70 and 0.90 [20].

A factorial analysis of major components by normalized varimax rotation was also performed from all scores (direct and indirect) of the motivational variables of the EMAPI questionnaire, to extract those factors that determine children's motivation from 1st EI cycle. In this case, the first 8 factors found explain 56.134% of the total variance. It can be seen in Table 1. So that, of the 4 factors of which the instrument consisted, 8 motivational factors or components have been found, following the completion of the factorial analysis.

Table 1

Total variance explained in EMAPI for each of the factors obtained by a factorial analysis of major components with standardized varimax rotation

<i>Factors or components and variables or items</i>	<i>% of variance</i>	<i>Cumulative %</i>
1.Self-confidence	14,485	14,485
2.Influence of positive attributions on attitude	8,721	23,206
3.Attribution of failure to hygiene activities	6,853	30,059
4.Value given to the task	6,416	36,475
5. Positive attitude	5,470	41,945
6.Attribution of failure to uncontrollable causes	4,922	46,867
7.Beliefs in the artistic field	4,655	51,523
8. Attribution to the difficulty of the task	4,611	56,134

The second analysis was the Kruskal-Wallis test. Its goal was to compare the scores obtained between the three established socioeconomic level groups (high, medium and low). The choice of this test was motivated by comparing more than two variables, making it necessary to choose this type of analysis.

Table 2

Kruskal-Wallis test results in the Nursery Group Averages located in a high, medium and low socioeconomic level area taking as Variables the EMAPI items (No. 435).

Item	Socio-economic level. High		Socio-economic level. Middle		Socio-economic level. Under		Signif.
	N	Range	N	Range	N	Range	
Total demand level	84	236,99	190	202,22	161	217,30	0,020
Attribution total effort	84	235,03	190	209,86	161	203,78	0,044
Total luck attribution	84	245,19	190	204,72	161	195,93	0,000
Total attribution	84	245,29	190	205,24	161	194,57	0,001

Table 2 shows different motivational profiles depending on the socioeconomic level of the student center, establishing differences between the high, medium and low levels. Here, the differences found can be seen in these factors: level of requirement, attribution to the total effort, attribution to the total luck and in the total attribution (because factors have a significance less than 0.05).

A third analysis was also performed, through the Mann Whitney test, used to compare the scores obtained between two independent groups. No significant differences were found in any of the items that measured the test in that analysis.

3. Results

Results in this study conclude that, it can be seen that four out of eight factors can identify the attributions: Factor 2: Influence of positive attributions on attitude; factor 3: Attribution of failure to hygiene activities; factor 6: Attribution of failure to uncontrollable causes and finally factor 8: Attribution to task difficulty (see Table 2) totaling 25.107% of a cumulative total variance of 56.134%.

Through this, it can be seen that the attributions have a great weight when it comes to factoring motivation, starting in 4 of the eight new factors of motivation. If we do not look at the factorial weights we can establish that the attributions that have the greatest impact are those attributed to capacity, such as "I pick up the toys because I am smart" and the effort with statements such as "I jump the blocks because I try many times", coinciding with internal causes of the individual himself. Attribution to difficulty of the task or luck are also present, thought with lower factorial weights, resulting in a lower importance for explaining the motivation

With regard to the comparison based on socioeconomic level, through the table shown it can be identified that there are significant differences between the different groups in four of the dimensions studied within the motivation test. First, significant differences in the value of total demand levels ($p=0.020$) can be observed, where high socio-economic-level nurseries perform best, followed by low socio-economic levels, and finally those of medium socio-economic level. On the other hand, these differences can also be identified in the section attributions to total effort ($p=0.044$), which attributes the highest score back to centers located in areas of high socio-economic level, changing in this case the remaining two, establishing the medium first and then the bass. The next term we find with significant differences is the section of attribution to total luck, where the different groups are prepared in the same way as the previous one, the best scores for the high level, followed by the average level, continued by the low level. Finally, the term total attributions, which also follows the same arrangement as the previous ones, setting the best scores at the high level, to continue with the middle level, concluding with the low level.

With regard to gender comparison, after the analysis of the results it was concluded that none of the variables is significant, so the null hypothesis is not rejected and we conclude that there are no significant differences in the sexes participating in this research.

4. Conclusions

The research carried out has provided unexpected data, such as the absence of significant gender differences. This aspect had been demonstrated in a large number of researches, however it was not found in this one.

On the other hand, this study makes possible to establish that attributions have a great weight when conceptualizing motivation in youngsters. It is known that in our daily lives we give "reasons" to the successes and failures that we have, but the important thing is to know the nature of these attribution [21].

As noted above, attributions that are made at higher levels demonstrate that successes are assigned to the effort that has led to the activity, while failures are to the lack of capacity. Attribution to the difficulty of homework or luck is left in the

background, although they are used by a large number of students. In our particular case, the premise that identifies most subsequent-stage investigations is fulfilled, where the powers that have the greatest weight are those of an internal nature, effort and capacity.

The result obtained in this research are desirable on the one hand and on the other hand it is not. First of all, it is very important that students attribute the results of their actions to their effort, since it is a premise that can be controlled [18]. On the other hand, attribute it to their capacity, is an undesirable aspect because we cannot control this factor. It may become finally a serious future problem, for example, in the student's self-esteem [22].

It has been many years since an important author said that lower-class children are less likely to be academically successful than those from higher socioeconomic status sectors [23]. Nowadays, the socioeconomic level continues being a predictor of academic success or failure. It goes on being a problem for the actual society.

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