

Motivation and Academic Achievement in Middle School Students

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Abstract

In Mexico, national tests indicate deficiencies in relevant areas to middle school students. The search for alternatives to improve this aspect of educational quality has led to research on motivation essential for learning. The aim of this study was to explore the relationship between achievement goals and orientations and academic achievement in middle school students. The sample was no probabilistic of 325 students. The Achievement Goal Questionnaire was applied in group and grade point average of the previous school year each student was obtained. The results showed on invalidity in the internal consistency and the factorial decomposition distribution of subscale items avoidance performance goals. The means of achieving the four goals were higher than average with minimal differences and dominance of mastery approach goals. Only one significant negative and low correlation between GPA and achievement goals avoidance performance was found. Further research is suggested in different cultural contexts and educational levels to confirm or modify the results of this study.

Keywords: Motivation, Achievement Goals, Goals of Mastery, Performance Goals, Academic Achievement.

1. Introduction

The quality of education, particularly the achievement of meaningful learning is critical in developing countries. In Mexico, the ENLACE Test results have shown deficiencies in math and Spanish knowledge of students in basic education which are central education. In 2006-2013 only 21.9% of students in Math and 19.7% in Spanish have attained the level of achievement of good and excellent (Secretaría de Educación Pública, 2014). This context has led research in schools with the intention of promoting proposals that contribute to the improvement of the situation.

In Mexico, at the level of secondary education, research supported the theory of achievement goal is scarce although it can contribute to a better understanding of learning in the educational environment, and be a resource for process changes required for success academic. Furthermore, the results of this study will be added to cross-cultural evidence to extend the generalization of theoretical construction. The aim of this study was to explore the relationship between the orientations of achievement goals and academic achievement in middle school students.

2. Theoretical Framework

Motivation is a major factor in academic success or failure (Martin, 2008) for influence in the way that students participate in different academic activities (Wigfield, Eccles, Schiefele, Roeser & Davis-Kean, 2006). Motivation is performing some activities with persistence and enthusiasm and avoidance of other (Wigfield et al., 2006) and explained almost as much variation in overall performance in school as intelligence (Steinmayr & Spinath, 2008).

In the classroom, the concept of motivation is used to explain the investment of student attention and effort into desired or undesired activities by teachers (Brophy, 2010). In addition, the motivation involved in the goals, the quality of work, behavior, welfare, test scores, grades, school completion student (Hardre & Sullivan, 2008).

Ryan and Deci (2000) suggest that the motivation is on a continuum. At one extreme is the intrinsic motivation and extrinsic motivation the other. Intrinsic motivation is the trend toward mastery, spontaneous interest, and exploration. Extrinsic motivation emerges from external factors such as the individual rewards or threats (Ryan & Deci, 2004); it is a function of social demands. Both sources of motivation can influence behaviors for success in student achievement (Ryan & Deci, 2004).

Research has shown that intrinsically motivated students tend to use strategies that although demand more effort, allow deeper processing of information to access meaningful learning (Miguez, 2005) and therefore a good academic performance (Gargallo, Suarez, & Ferreras, 2007). High levels of intrinsic motivation are associated with high academic achievement, self-regulation and persistence (Corpus, McClintic-Gilbert, & Hayenga, 2009). Therefore, intrinsic motivation should be encouraged in the classroom (Brophy, 1999). Extrinsic goals are more related to poor academic performance than intrinsic goals (Vansteenkiste, Lens, & Deci, 2006).

Achievement goals are the purpose or intent of student academic success, determine the value attached to academic activities, how they are involved in them and are influenced by previous achievements (James & Yates, 2009). The achievement, students are the results that include grades in a given academic year, school achievement tests or standardized tests and teacher assessment scales (Asante, 2010).

Initially in achievement goals were proposed the orientations of mastery and performance (Meece, Anderman, & Anderman, 2006). Masters orientation is characterized by the tendency of students to develop their own competence and / or improve their previous level of functioning (Senko, Hulleman, & Harackiewicz, 2011), to learn new things, to increased performance (Ames, 1992), a greater commitment to the task (McGregor & Elliot, 2002), to self-improvement through understanding and mastery of tasks, regardless of the success of others (Meece et al., 2006). This orientation has been associated with strong intrinsic motivation (Elliot & Church, 1997).

The ideal learning environment should be characterized by goals oriented master (Pintrich, 2003) because most students attend keys that support learning as an active process that requires understanding (Patrick, Anderman, Ryan, Edelin, & Midgley, 2001). Achievement goals with oriented performance are characterized by supporting competition and show it to others (Senko et al., 2011) using social comparisons for judgment on the capacity and performance (Meece et al., 2006). This orientation is associated with maladaptive outcomes and less productive than the orientation of master (Linnenbrink, 2007).

First it was found that the goals oriented to mastery generally positive results predicted academic achievement and goals oriented to performance showed negative results (Ciani, Middleton, Summers, & Sheldon, 2010). Large part of empirical evidence supported the goals oriented to mastery were more adaptable and led to motivations, cognitive strategies and academic results more positive than goals oriented to performance (Hulleman Schragger, Bodmann, & Harackiewicz, 2010).

Subsequently data inconsistencies were detected. Some studies have related to student performance goals with better self-regulation (Bouffard, Vezeau, & Bordeleau, 1998), and with higher performance (Harackiewicz et al., 1997). In a meta-analysis it found that the performance orientation goals were associated with positive and negative results (Rawsthorne & Elliot, 1999). In addition, a review of research on the subject, Hulleman et al., (2010) found that performance goals can lead to positive results and relate to higher academic achievement (Harackiewicz et al., 1997).

To explain these inconsistent findings Midgley (2002) argues that the desire of students to be better than others can have positive effects rather than negative consequences, which means that performance goals can be adaptive and effective for academic performance. Another explanation was that the expectation value model of Atkinson (1957) that is one of the foundations of achievement goals included motives approach and avoidance that were not incorporated into these goals (Elliot & Church, 1997; Elliot & Harackiewicz, 1996).

After these inconsistent data and previously referred explanations, Elliot and McGregor (2001) presented the model of achievement goals 2x2 where the dimensions of approach and avoidance were included. Each orientation of the goals has a positive or negative valence. The positive valence approximation is called approach when trying to achieve the desired goal and the negative valence is called avoidance when it is intended to prevent failure (Harackiewicz, Barron, & Elliot, 1998). Thus approach mastery goals, avoidance mastery goals, performance approach goals and performance avoidance goals were established.

Mastery approach goals refer to approach situations that direct the student to competition (Wolters, 2004). The avoidance mastery goals are an effort to not do worse than has been done before, concern not learn as much as possible (Elliot & Murayama, 2008), to work to avoid misunderstandings and the use of standards to avoid mistakes to do an activity. These goals are negative for learning by association with anxiety (Elliot & McGregor, 2001; Elliot & Harackiewicz, 1996).

In the orientation of approach performance goals achievement the student has the desire to demonstrate its capacity is better than others, while the performance-avoidance try to avoid showing lack of capacity (Turner et al., 2002) and have been related to avoid asking for help and novelty (Anderman, & Wolters, 2006). Studies with the 2x2 model reveal that not all

performance goals are problematic. The performance approach goals are associated with positive and negative results. An example to explain these goals is the perfectionist student who does not want to make mistakes or do not want to learn something in the wrong way (Elliot & McGregor, 2001) so it can be adaptive in the educational context (Elliot & Church, 1997).

3. Method

3.1 Sample

The sample was no probabilistic. 325 students of the middle school the medium socioeconomic class. 164 students (50.5%) attended the 2nd secondary and 161 (49.5%) 3rd secondary in a range of 12-17 years with a mean of 13.4 years. 148 (45.5%) men and 177 women (54.5%).

3.2 Instruments

Achievement Goal Questionnaire (Elliot, & Mc. Gregor, 2001): This instrument is a Likert scale with five answer choices (1 = strongly disagree to 5 = completely agree) that has 12 items distributed in four factors with three items each: mastery approach goals with α .75, mastery avoidance goals with α .67, a performance approach goals with α .83, and performance avoidance goal with an α .81 e (Elliot & McGregor, 2001). We use adaptation to Spanish language and Mexican context by Ramirez (2015)

Academic Achievement: The achievement is student grades in school achievement tests, standardized tests and teacher assessments (Asante, 2010). In this study, academic achievement was the GPA of the previous school year each student and was obtained from school records for school. The average grade was 85.

3.2 Procedure

The authorization of the parents and the administrative authority of the high school before the application of instruments were obtained. Application of Achievement Goals Questionnaire to the students was a group in a single session of classes, no time limit.

In the data analysis, the average of each of the three dimensions of the questionnaire and the internal consistency of the complete instrument and its subscales was obtained. Subsequently, a factor analysis with principal components method and rotating Oblimin was performed.

4. Results

The internal consistency of the Achievement Goal Questionnaire was a Cronbach's alpha of .77. In the approach mastery subscale was α .70; mastery avoidance subscale was α .83; approach performance subscale was α .70 and the performance avoidance subscale was α .41

The exploratory factor analysis using the extraction method of principal components (PCA) with rotation Oblimin (Table 1) showed that the variance explained by the four factors is 66%.

Table 1: Factor loadings of Achievement Goals Questionnaire

Achievement goal items	Factor			
	Approach performance	Mastery avoidance	Approach mastery	Approach performance
1. It is important for me to have a better performance than other students	.843			

2. It is important for me to do things well compared with others in this semester.	.732		
3. My goal this semester is to obtain a better grade than most other students.	.771		
4. I worry that may not learn everything I could in this semester.		.828	
5. Sometimes, I'm afraid not understand the contents of this semester so deeply as I would like		.845	
6. Sometimes I worry that not learn all you can learn this semester.		.884	
7. I want to learn as much as possible in this semester.			.632
8. For me is important to understand the contents of this semester the most complete way possible.			.715
9. I want to fully master the material presented in this semester.			.701
10. All I want is to keep me from going wrong in this semester.			.847
11. My goal this semester is to prevent my performance is bad.			.840
12. Sometimes, what motivates me in this semester is the fear that I go wrong	-.417	.537	

*Factor loadings > .30

The means of the four categories of goals are above average (Table 2).

Table 2: Mean goals achievement

	Approach performance	Mastery avoidance	Approach mastery	Approach performance
Mean	4.17	4.30	4.39	3.74
Std. typ	.03	.03	.02	.05
Variance	.37	.33	.27	.81

The GPA only correlated negatively and significantly lower performance with avoidance goals ($r = -.14$).

4. Discussion

The internal consistency of achievement goals questionnaire and its subscales was adequate, except subscale performance avoidance goals obtained a Cronbach's alpha unacceptable. In the factorial distribution, two items of the subscale performance avoidance goals moved: an item subscale to approach performance goals and other item to mastery subscale avoidance goals. These results are inconsistent with those found by Elliot and McGregor (2001).

In this study, was applied the Spanish adaptation at the same socio-cultural context and university student Achievement Goals Questionnaire 2x2 Ramirez (2015) which showed adequate psychometric characteristics.

However we were different data. One implication is the need for future research in different cultural contexts and educational levels with careful adaptation, data internal consistency and factorial distribution to propose our data as exceptional or check them and in the latter case, to examine the appropriateness of modification to this subscale.

The mean of the four goals of achievement was above average and the differences between each minimum. The superiority of the average of the four orientations, can infer the influence of external and internal motivation on academic achievement; idea congruent with the proposal based on student motivation intra- and interpersonal processes (Turner & Patrick, 2004).

Academic performance was a mean score of 85 that only had significant negative and low correlation goals with performance avoidance orientation where students try to avoid poorly in comparison with other (Elliot, 1999; Elliot & McGregor, 2001) and that this study did not demonstrate psychometric validity.

Despite this lack of correlation, it is the result of high mean in four orientations of the goals of achievement and high average scores of the group of participating students involving the existence of a relationship between these two variables. This association is consistent with the outcome of the review of studies conducted by Hulleman, et al. (2010) where it was found that mastery goals and performance goals are adaptive and lead to a positive academic achievement and (Midgley, 2002). Therefore, it is inferred that high academic performance can be attained with the four types of achievement goals.

The difference between the goals oriented to mastery and the goals oriented to performance is in the process. The first is based on internal motives and the second are based on external standards that can lead to a more limited learning (Elliot & Harackiewicz, 1996). Ames and Archer (1988) showed that in these two types of goals the student has different patterns of learning strategies, in preference for challenging tasks in class attitude and beliefs about the causes of success and failure.

In conclusion, no positive significant relationships between any of achievement goals and academic performance were found. Further research is suggested in different cultural contexts and educational levels to confirm or modify the results of this study. In particular the review of the avoidance subscale performance goals in its aspect of linguistic adaptation and psychometric to make appropriate decisions about features is recommended.

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