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## Abstract

Motivation refers to reasons that underlie behavior that is characterized by willingness and volition. Motivation, that which energises and directs behaviour toward a goal (Eggen & Kauchak, 1994), could certainly be perceived as one of the most important psychological concepts in education. It is an inner desire and drive required for successful performance.

### Keywords:

academic motivation, self-efficacy, educational intervention program

The aim of this research was to determine the factors that inhibit pupils school success and to develop a intervention programme to increase the academic motivation among 3<sup>rd</sup> grades pupils. Empirically, the intervention programme based on Bandura's self-efficacy theory (Bandura, 1977), the expectancy-value theory (Eccles & Wigfield, 2002) and the self-determination theory (SDT, Deci & Ryan, 2000).

The results showed that the proposed intervention programme had a significant impact on increasing the academic motivation of the participants ( $t(19) = 15,87, p=0.00, d=3.4$ ).

## Zusammenfassung

Motivation bezieht sich auf die Gründe, die der Annahme eines von Begehren und Willen geprägten Verhaltens zugrunde liegen. Motivation, die das Verhalten anregt und auf ein Ziel lenkt (Eggen & Kauchak, 1994), kann als das wichtigste psychologische Konzept in der Erziehung angesehen werden. Es ist ein inneres Verlangen und eine Orientierungsquelle für die Erreichung akademischer Leistungen.

### Schlüsselworte:

Lernmotivation, Selbstwirksamkeit, pädagogisches Interventionsprogramm.

Ziel dieser Forschung war es, die Faktoren zu ermitteln, die den Bildungserfolg der Schüler beeinträchtigen, und ein Interventionsprogramm zu entwickeln, um die akademische Motivation der Schüler der dritten Klasse zu steigern.

Das Interventionsprogramm basiert empirisch auf der Theorie der Selbstwirksamkeit (Bandura, 1977), der Erwartungswerttheorie (Eccles & Wigfield, 2002) bzw. der Theorie der Selbstbestimmung (SDT, Deci & Ryan, 2000).

Die Ergebnisse zeigten, dass das vorgeschlagene Interventionsprogramm einen signifikanten Einfluss auf die Steigerung der Schulmotivation der in die Studie einbezogenen Teilnehmer hatte ( $t(19) = 15,87, p = 0,00, d = 3,4$ ).

## 1. Introduction

Motivation is fundamental for an effective learning because it has the power to activate and guide the behaviour and the level of responsibility which any child manifests during this activity as a student. Motivation must be stimulated from a young age along with the learning abilities, because as time goes by, these might undergo changes due to feeble influence.

According to the general definition provided by Schunk and collaborators (2008), motivation is the process whereby goal-directed activities are instigated and sustained. While in school context "motivation refers to a student's willingness, need, desire and compulsion to participate in, and be successful in the learning process"

The students' involvement in the school context refers to the behavioural activities which came out as a result of the motivational beliefs; involvement which can be described in terms of intensity, persistence and behaviors directed to school assignment.

## 2. Theoretical foundation

A well-focused literature review indicated that there are some studies which have researched students' development of motivation. It has been observed that during primary school, some motivational values are decreasing; such as intrinsic motivation (Gottfried et. al., 2001), appraisal of the assignment (Jacobs et. al., 2002; Spinath & Spinath, 2005) and the direction toward the assignment (Bong, 2001).

The valorization of the learning experience depends on the personal source of motivation:

- *Extrinsic motivation* is associated with the attainment of some kind of reward (grades, award, medals) (Krause et. al., 2003).
- *Social motivation* is associated with the recognition of their accomplishments from relevant individuals (teachers, parents). This type of motivation is distinctive from the pure extrinsic motivation due to the fact that for a child it is important the way in which an adult is rapporting himself to the child, not the reward itself.
- *Performance motivation* is referring to that type of motivation associated with the need of being in a competition and the need of showing one's superiority towards others. Performance motivation has two subdivisions (McClelland, Kostner & Weinberger, 1989):

- Motivations derived from the need of success, usually at children who tend to be competitive and try to demonstrate that they succeed and can be better than the others.

- Motivations derived from avoiding failure, usually at children who are trying to avoid situations in which they believe they might not succeed, in order to protect their self-esteem and self-efficacy.

- *Intrinsic motivation* refers to doing an activity for the inherent satisfaction it brings. This type of motivation has as its base the interest, curiosity and the need of developing their own abilities. The level of motivation varies based on the individual's perception over the level of difficulty of the material (Krause et. al., 2003):

- If the material is too accessible, then the activity is not perceived as a challenge, as a result is considered as being dull, therefore the intrinsic motivation is reduced.

- If the material is too demanding because of the lack of abilities, then the intrinsic motivation is reduced.

- If the material is perceived as being accessible, then the intrinsic motivation tends to grow.

For the most times, students' behavior and the attainment of academic performance are in a strong relationship with school motivation (McInerney & Marti, 2006; Smith, Duda, Allen & Hall, 2002).

According to Midgley and his collaborators (1996) a student considers himself motivated only in situations in which:

- 1) prefers a certain activity over another one
- 2) initiates and takes part in activities linked to that activity
- 3) persists until the activity is over, even though it had encountered difficulties.

Martin (2009) had proposed a distinction between the adaptive factors and the maladaptive ones over students' motivation. The following adaptive factors may be taken into account:

1. **Self-efficacy:** It refers to students' trust in his own abilities to organize and perform the necessary activities in order to produce certain accomplishments (Bandura, 1997). Students' self-persuasion regarding their capacities in certain academic fields can influence the selection of the activities, effort, perseverance and their vulnerability to stress and depression.

Numerous empirical studies realized in the field of educational psychology (Lau, Liem & Nie, 2008; Schunk, Pintrich & Meece, 2008) have demonstrated that, students with a high level of self-efficacy are more likely to invest more effort in the learning process and to engage themselves in learning activities in order to obtain optimal academic performance.

2. **Interests:** these represents important constructs in school activities, because they reflect the potential of each student and the inherent tendency to learn (Ryan & Deci, 2000). The interest is presented in the academic context as a motivational source which allows the students to participate actively in the learning activities, holds positive skills and persists during the learning process (Hidi & Ainley, 2002; Katz, Assor, Kanat-Maymon & Bereby-Meyer, 2006; Linnenbrink- Garcia et. al., 2010).
3. **Mastery goal orientation:** students with a high level of mastery goal orientation have a tendency towards in cognitive activities which stimulates them more (Seifert, 2004), they tend to be more hard working when it comes to difficult activities (Ryan & Pintrich, 1998), and are capable of keeping their interest in the learning process (Robins & Pals, 2002).

4. Commitment: is a key-factor which contributes to the quality of learning and to school success (Skinner, Furrer, Marchand & Kindermann, 2008). Students' commitment to the learning activities preserve their effort, determinism and perseverance- factors which lead to a favorable result in the academic process (Fredricks, Blumenfeld, Paris, 2004).

The maladaptive factors of motivation are avoidance coping and effort withdrawal. Avoidance coping refers to the students' tendency to quit the activity when it is difficult or dull. Effort withdrawal represents the students' tendency to minimize the amount of effort for the academic process (Meece, Blumenfeld & Hoyle, 1988; Nicholls, Patashnick & Nolen, 1985).

Studies related to the educational field have focused on two types of interests: individual interest and situational interest (Hidi & Renninger, 2006, Schunk et al., 2008), *the individual interest* refers to an interest that has a strong base, characterized by the need of developing certain abilities and to manifest involvement in the field, while *situational interest* is defined as temporary interest that arises spontaneously due to environmental factors such as task instructions in a certain context (Murphy și Alexander, 2000).

Research on the impact of interest in school point out the beneficial results interest has on the quality of the learning process, attention, objectives, school motivation, even school performance (Hidi & Renninger, 2006, Krapp, 2002, 2005, Wigfield & Cambria, 2010). Studies made on groups of students show that mastery goals are the precursors of interest, (Harackiewicz et al., 2000), which demonstrate the predictive value of the interest for performance (Harackiewicz et al., 2008, Tracey & Robbins, 2006) and also offers data regarding the fluctuations of interest during a course (Rotgans & Schmidt, 2011).

The effect of performance over the self perceptions of a student can be positive or negative. If a student succeed, during an activity in which he has engaged in a cognitive manner and has worked in order to solve it, he would estimate the experience as worth it. This fact is going to improve the student's self-esteem regarding his own activity and is going to make him to appreciate more this type of learning activities. At the same time, a failure may have a negative effect over the student's perceptions

regarding his own abilities, making him to doubt about the possibilities of succeeding.

"Success or failure may depend on the correspondence between the aiming level and the final result. Thus, a completed action is accompanied by a sense of failure if it is below the aiming level and by a sense of success if it reaches or exceeds the aiming level of a person. Success or failure can result from the differences between goals and performance skills, especially among those who fear failure, which will lead to an increased motivation to avoid failure then the need to succeed." (Lupu, 2013, p. 47).

### 3. Research methodology

#### 3.1. Purpose of research

The purpose of this research is to elaborate an intervention program personalized for 3<sup>rd</sup> class students regarding raising the motivational level during the learning process, as a result the following objective emerge:

- Students' evaluation involved in the study regarding motivation in the learning process.
- Identification of the probable cause which determine a decrease in the students' level of motivation and pointing out possible solutions that have emerged from an intervention programme.
- Implementing an intervention program in education in order to increase 3<sup>rd</sup> class students' academic motivation starting with the needs identified in the statement of findings.

#### 3.2. Hypothesis and research variables

This study's hypothesis is the following:

The implementation of a stimulating program focused on achieving motivation during the learning process can help increase students' academic performance.

*Independent variable:* intervention program

*Dependent variables:* academic motivation

#### 3.3. Participants

The participants of this study were the students of a 3<sup>rd</sup> class (No=20) from the Primary School with I-VIII

classes based in Viseul de Jos, Maramures country having the age between 9-10 years old with a mean age of 9 years and 4 months.

### 3.4. Instruments

*Assessment questionnaire of motivation and engagement-version for junior school students (Motivation and engagement scale- Junior School, Martin, 2009)*

This questionnaire can be used in schools by teachers, school counselors or psychologist in order to evaluate the motivational level of students. It can be used for children between 9 and 13 years old.

Students are going to answer to a set of questions on a Likert scale from 1 to 5, where 1 represents "strong disapproval" and 5 "strong approval", the time for answering the questions being limited. The score can be used in order to offer educational assistance, specific information for teachers and parents. This questionnaire has 18 items organized as follows: perseverance (3 items), concentration (2 items), planification (2 items), engagement (2 items), uncertainties (2 items), anxiety (3 items), fear of failure (1 item), school valorization (2 items), self-encouragement (1 item).

This scale can be filled in pen on a sheet paper by students. Regarding the reliability and validity of this questionnaire, Martin(2009) has it validated on a group of Australian students from .63 classes and 15 schools obtaining a  $\alpha$  Cronbach .78 coefficient while the test version got a .61 coefficient.

### 3.5. Procedure

For testing the hypothesis of this research it has been used an experimental design and the research took 3 months (February 2017 - April 2017).

The dependent variable of this research is the students' motivation (measured with the help of the *Assessment*

*questionnaire of motivation and engagement - version for junior school students.* (MES-JR) and the interventional program represents the independent variable.

On the *pre-test* stage the focus was on evaluating the children in order to obtain information and referential data, necessary for the program's development. After gathering the results and interpreting them it was noticeable that they possess a decreased level of academic motivation during the learning process and I decided to elaborate an interventional program "Learning with pleasure" which had the goal to develop a set of educational activities which are going to develop the motivational level regarding the learning process.

The *post-testing* stage took place the following week after the program was finished consisting on implementing the same investigational program in order to establish the effectiveness of the educational program.

The interventional program "**Learning with pleasure**" has an empirical base, the auto-efficacy theory (Bandura, 1977), expectation-value theory (Eccles & Wigfield, 2002), and the auto-determination theory (SDT, Deci & Ryan, 2000).

The intervention took place during the first half of the first semester of the school year 2016-2017. The meetings took place during the personal development classes.

For developing the necessary activities of the interventional program, were taken into consideration the learning components organized into modules from the curriculum area "counseling, orientation, personal development for I-IV classes". The following themes were chosen "Learning management" (content: evaluation of the learning process) and "Effective learning planning" (content: perseverance, organisation, emotional resistance). Thus, for the *Effective learning planning* were used worksheets from the educational program Yes, You can, You can make it !"( Bernard, 2005).

## 4. Results

For the study's hypothesis was used test t for paired samples in order to observe if the proposed program had an influence over the variables measured for the study's participants.

Table no. 1. Descriptive statistics

			Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Academic motivation intervention	before	3,30	20	,26	,058
	Academic motivation intervention	after	4,29	20	,23	,053

Analyzing the results from *Descriptive Statistics* it can be observed that the academic motivation before the intervention was at 3.30 (SD= 0,26) and after the intervention was at 4.29 (SD= 0.23)

Table no. 2. Paired Samples t test Results

Outcome	Pre-test		Pos-test		n	95% CI for Mean Difference	r	t	df
	M	SD	M	SD					
Academic motivation	3.30	.26	4.29	.23	20	-1.12; -.85	.38	15.8*	19

\*  $p < 0.01$

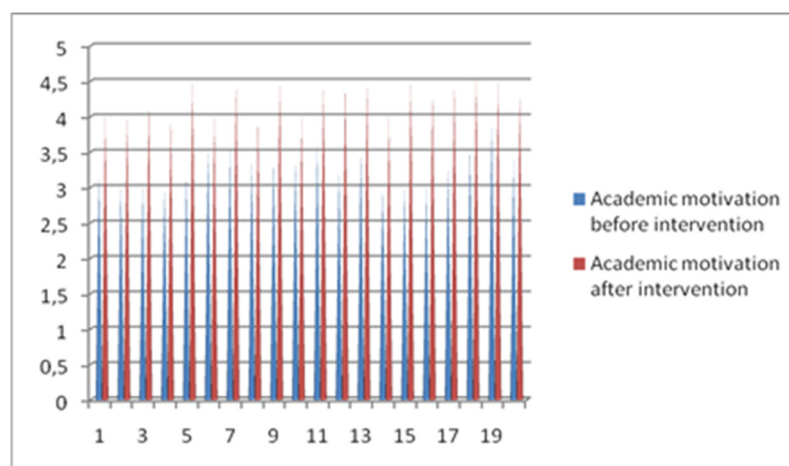


Figure no. 1. Representation of the variable measured according to the experimental phase of the participants included in the study

In the table no. 2 are presented the results for test t for pairs. Thus, after reviewing the result, it was obtained  $t_{(19)} = 15,87$ ,  $p=0.00$ , because has a semnificative level, it can be seen that there is an important difference between the pre-test and post-test conditions. Calculating the effect for

this two pairs, we obtained  $d=3,4$  which means according to Cohen's criterias (1988), that the interventional program "**Learning with pleasure**" had a strong effect in raising the level of academic motivation among the



students who had participated in the study. To conclude, **the hypothesis of the study is confirmed.**

## 5. Conclusions

The learning motivation influences the learning process itself and also the results of the process. Motivation energizes and facilitates the learning process through intensifying the effort and the students' attention by creating a preparing mood for the learning activity.

The general and specific motivations which activate, orient and sustain our behaviour are the result of our interactions between personal characteristics and opportunities/ environmental constraints. The analysis of the factors which have an influence over motivation have a high relevance for the teaching process. These factors can action both as enhancers and inhibitors regarding the students' involvement in the learning process. Motivational factors can be organized in two major categories: *internal factors* (these refer to the personal characteristics, both predominantly inborn, but also acquired and stabilized over time) and *external factors* (represented by the general or specific contextual influences).

Presence plays an important role for the educational dynamic. It is also a consequence of motivation because the more motivated a student is, the better his performance will be. A motivated student will persevere more, will use appropriate learning strategies that will influence his performance. The relationship between motivation and educational success doesn't have to be unilateral because performance too can influence motivation. Performance as a concret result of the learning activities becomes for a student a source of information which influences his perceptions over his own competence.

Testing the interventional program "Learning with pleasure" over 20 subjects, we can confirm that this program has demonstrated its effectiveness regarding raising the level of academic motivation ( $t_{(19)} = 15,87$ ,  $p=0.00$ ) for 3rd class students.

We can confirm that the choice of activities created and applied in the program has highlighted the most important components of the successful raising of the

students' academic motivation: assessing learning style, increasing persistence, planning effective learning.

One limitation that this study might encounter is the fact that the subjects of the study are students of the same class, thus this study does not have a high level of accuracy regarding the generalization of the obtained results. A second limitation might be the fact that the use of the questionnaire is not validated and adapted to the romanian population so that its psychometric properties remain unchanged. Another limitation that this study refers to not taking into consideration some variables such as: personality characteristics of the students, the educational level of the parents, etc.

A research direction might be the parents' involvement in the interventional program. The parents' involvement in the children' learning process is the key aspect for the raising of autonomous motivation, respectively of the self-effectiveness level of the student which leads to satisfactory school performances (Furrer & Skinner, 2003; Grolnik, Friendly & Bellas, 2009; Cheung & Pomerantz, 2012).

Another research direction might be the investigation of the parental style influences over the students' motivational level during the learning process. Reading the specialized literature, some studies (Hafer-Bry, 2004; Turner, Chandler & Heffer, 2009) have demonstrated that, there is a strong connection between the parenting styles, motivation and the self-knowledge of students.

### Authors note:

The authors have equal contributions to this article.

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## References

- Bandura, A. (1997). *Self-efficacy: The Exercise of Control*. New York, NY: W.H. Freeman and Company.
- Bong, M. (2001). Role of Self-Efficacy and Task-Value in Predicting College Students' Course Performance and Future Enrollment Intentions. *Contemporary Educational Psychology*, 26, 553-570.
- Fredricks, J.A., Blumenfeld, P.C., & Paris, A.H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of educational research*, 74(1), 59-109.
- Gottfried, A.E., Fleming, J.S., & Gottfried, A.W. (2001). Continuity of academic intrinsic motivation from childhood through late adolescence: a longitudinal study. *Journal of Educational Psychology*, 93, 3-13.
- Harackiewicz, J. M., Durik, A. M., Barron, K. E., Linnenbrink-Garcia, L., & Tauer, J. M. (2008). The Role of Achievement Goals in the Development of Interest: Reciprocal Relations between Achievement Goals, Interest and Performance. *Journal of Educational Psychology*, 100(1), 105-122.
- Hidi, S., & Ainley, M. (2002). Interest and adolescence. *Academic motivation of adolescents*, 247-275.
- Hidi, S., & Renninger, K.A. (2006). The Four-Phase Model of Interest Development. *Educational Psychologist*, 41(2), 111-127.
- Jacobs, J.E., Lanza, S., Osgood, D.W., Eccles, J., & Wigfield, A. (2002). Changes in children's self-competence and values: gender and domain differences across grades one through twelve. *Child Development*, 73, 509-527.
- Katz, I., Assor, A., Kanat-Maymon, Y., & Bereby-Meyer, Y. (2006). Interest as a motivational resource: Feedback and gender matter, but interest makes the difference. *Social Psychology of Education*, 9(1), 27-42.
- Krapp, A. (2002). Structural and dynamic aspects of interest development: theoretical considerations from an ontogenetic perspective. *Learning and Instruction*, 12, 383-409.
- Krapp, A. (2005). Basic needs and the development of interest and intrinsic motivational orientations. *Learning and Instruction*, 15, 381-395.
- Krause, K.-L., Bochner, S., & Duchesne, S. (2003). *Educational psychology for learning and teaching*. Melbourne: Thomson Learning.
- Lau, S., Liem, A.D., & Nie, Y. (2008). Task-and self-related pathways to deep learning: The mediating role of achievement goals, classroom attentiveness, and group participation. *British Journal of Educational Psychology*, 78(4), 639-662.
- Linnenbrink-Garcia, L., Durik, A.M., Conley, A.M., Barron, K.E., Tauer, J.M., Karabenick, S.A., & Harackiewicz, J.M. (2010). Measuring situational interest in academic domains. *Educational and Psychological Measurement*, 70(4).
- Lupu, A. (2013). *Activitățile de consiliere. Reușita și stima de sine în viața preadolescenților*. Cluj-Napoca: Editura ASCR.
- Martin, A. (2009). Motivation and Engagement Across the Academic Life Span. A Developmental Construct Validity Study of Elementary School, High School, and University/College Students. *Educational and Psychological Measurement*, 69(5), 794-824.
- McClelland, D.C., Koestner, R., & Weinberger, J. (1989). How do self-attributed and implicit motives differ?. *Psychological review*, 96(4), 690.
- McClenney, K.M., & Marti, C.N. (2006). Exploring Relationships between Student Engagement and Student Outcomes in Community Colleges: Report on Validation Research. Working Paper. *Community College Survey of Student Engagement*.
- Meece, J.L., Blumenfeld, P.C., & Hoyle, R.H. (1988). Students' goal orientations and cognitive engagement in classroom activities. *Journal of educational psychology*, 80(4), 514.
- Midgley, C., Arunkumar, R., & Urdan, T.C. (1996). "If I don't do well tomorrow, there's a reason": Predictors of adolescents' use of academic self-handicapping strategies. *Journal of Educational Psychology*, 88(3), 423.
- Murphy, P.K., & Alexander, P.A. (2000). A motivated exploration of motivation terminology. *Contemporary educational psychology*, 25(1), 3-53.
- Nicholls, J.G., Patashnick, M., & Nolen, S.B. (1985). Adolescents' theories of education. *Journal of Educational Psychology*, 77(6), 683.
- Robins, R.W., & Pals, J.L. (2002). Implicit self-theories in the academic domain: Implications for goal orientation, attributions, affect, and self-esteem change. *Self and identity*, 1(4), 313-336.
- Rotgans, J.A., & Schmidt, H. G. (2011). Situational interest and academic achievement in the active-learning classroom. *Learning and Instruction*, 21, 58-67.
- Ryan, A.M., & Pintrich, P.R. (1998). Achievement and social motivational influences on help seeking in the classroom. In S.A. Karabenick (Ed.), *Strategic help seeking: Implications for learning and teaching* (pp. 117-139). Mahwah, NJ, US: Lawrence Erlbaum Associates Publishers.
- Ryan, R.M., & Deci, E.L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American psychologist*, 55(1), 68.
- Schunk, D.H., Pintrich, P.R., & Meece, J.L. (2008). *Motivation in education: Theory, research, and applications* (3rd ed.). New Jersey: Pearson Education Inc., 1-43, 43-79, 208-235.
- Seifert, T. (2004). Understanding student motivation. *Educational research*, 46(2), 137-149.
- Skinner, E., Furrer, C., Marchand, G., & Kindermann, T. (2008). Engagement and disaffection in the classroom: Part of a larger motivational dynamic?. *Journal of educational psychology*, 100(4), 765.
- Smith, M., Duda, J., Allen, J., & Hall, H. (2002). Contemporary measures of approach and avoidance goal orientations:



- Similarities and differences. *British Journal of Educational Psychology*, 72(2), 155-190.
- Spinath, B., & Spinath, F.M. (2005). Longitudinal analysis of the link between learning motivation and competence beliefs among elementary school children. *Learning and instruction*, 15(2), 87-102.
- Tracey, T.J.G., & Robbins, S.B. (2006). The interest-major congruence and college success relation: A longitudinal study. *Journal of Vocational Behavior*, 69, 64-89.
- Wigfield, A., & Cambria, J. (2010). Students' achievement values, goal orientations, and interest: Definitions, development, and relations to achievement outcomes. *Developmental Review*, 30, 1-35.