

## THE IMPACT OF PERCEIVED PARENTAL INVOLVEMENT ON STUDENT SUCCESS

**Daniela POPA, Ph.D.**  
**Transilvania University of Brasov,**  
**Department of Psychology**  
[danapopa@unitbv.ro](mailto:danapopa@unitbv.ro)

**Abstract:** *This research focus on how the high school students perceive their families support, whether this perceived support from the mother, father or both influence their academic performance and their level of self-esteem and self-efficacy. There were investigated 140 high school students from Brasov County. The study's instruments are 3 questionnaires that measure the quality of parent-child relationship, self-esteem and self-efficacy. The results show that self-esteem and academic achievement are positively correlated with supportive behaviors of mothers toward their adolescents. The student's mothers support their children's educational needs in greater extent than their fathers do. More often the students' perception of their fathers support and involvement is far less perceived and felt by respondents, as against to the support perceived from their mother. A relationship was found between students' academic achievement at exact science (chemistry, physics) and supportive behaviors of mothers.*

**Keywords:** *parental support, parental involvement, self-esteem, self-efficacy, academic achievement*

### 1. Introduction

In today's educational psychology research there is a growing interest in the effects that family has on individual motivational beliefs (self-efficacy and self-esteem) of the child, adolescent behaviors that interact with learning and academic performance (Koballa & Glym, 2011; Baram- Tsabari & Yarden, 2009; Schunk, Pintrich, & Meece, 2008, Cheung & Pomerantz, 2012; Fan, Williams, & Wolters, 2012; Fortus & Vedder-Weiss, 2014).

A variety of motivational factors may influence the decision to engage in academic tasks as well as the results of that involvement (Hill & Taylor, 2004; Pomerantz, Moorman, & Litwack, 2007; Urdan, Solek, &

Schoenfelder, 2007), however from the scientific literature were selected (i) personal beliefs concerning their own abilities (self-efficacy), (ii) self-esteem and (iii) perception of the involvement and support provided by parents.

### ***1.1. Self-efficacy***

It has been shown that students' self-efficacy influences the engagement in learning, causing a certain level of achievement. Self-efficacy is based on personal beliefs concerning their abilities to organize and undertake, to guide actions in order to achieve their objectives. Beliefs about their capabilities influence individual choices and selection of activities in which adolescents will engage (Pajares, & Schunk, 2001). Beliefs about efficacy adjust the level of effort in an activity, the time involved to persevere when confronted with obstacles and resilience to challenging situations. Individuals who have low levels of self-efficacy in achieving a specific task will tend to avoid it, while individuals who are convinced of the high level of their capabilities are more likely to take action ((Farrington, Roderick, Allensworth, Nagaoka, Keyes, Johnson, & Beechum, 2012; Pajares, & Schunk, 2001).

Self-efficacy determines the level of stress and anxiety felt by individuals in the course of an activity (Galla, Wood, Tsukayama, Har, Chiu, Langer, 2014). An interesting aspect is that some psychological traits generally, are considered to be independent from cognitive skills (Farrington et. all, 2012), affecting the academic performance much more than cognitive skills (Duckworth, Seligman, 2005). One of the predictors of academic performance, along with cognitive abilities is the level of self-efficacy (Brown, Tramayne, Hoxha, Telander, Fan, & Lent, 2008; Dahl, Bals, & Turi, 2005; Salami & Ogundokun, 2009; De Caroli, Sagone, 2014). Chemers, Hu and Garcia (2001) studied the effects of self-efficacy in academic plan, using the grades obtained by the students, finding a significant correlation between the two variables (Mehjabeen, 2013; Komarraju, Nadler, 2013).

### ***1.2. Self-esteem***

One of the promoters of self-esteem concept was William James (1890). He described the concept as a sense of self that depends on how we strive to be and do. The author states that success and achievement of the actions we address depends on what we believe about ourselves (Pajares, Schunk, 2001). Recently researchers have made a proposal according to which self-esteem system works automatically in assessing the likelihood of acceptance versus exclusion by others.

Conclusions of the research conducted by Baccus, Baldwin and Packer (2004) show that self-esteem system stores this information as positive or

negative in association with the Self, and these associations can be modified by the acceptance procedure respectively conditioning. Self-esteem is based on information about own skills compared to others skills. This suggests that self-esteem is rooted in the bonds formed between representations about Self and expectations of positive or negative social feedback (Baccus, Baldwin, Packer, 2004). This is one of the reasons for which self-esteem is included in the social reasons category influencing implicitly academic performance (Baccus, Baldwin, Packer, 2004).

Research shows that there is a significant correlation, positive and moderate relationship between self-esteem and the average of grades (Ahmed, Minnaert, van der Werf, et al., 2010). Weak correlation is supported by research which postulates that the weak association between self-esteem and academic performance is determined at students with a well pronounced cognitive level, which experience academic success, but with a high level of self-requirement as well as the students with medium level academic skills, but which compensate for their lack through a high general level of self-esteem (Yanti, Hidayatulfathi, Ismarulyusda, Syarif, Nur, Baharudin, 2012).

### **1.3. Parents support and involvement**

An intense pursued aspect recently is the contextual positioning of the individual performance. It is impossible to isolate the individual's ability, controlling environmental characteristics of origin or existence. It is well known that the family, as first social environment of the individual, leaves its mark on the individual self-efficacy through the expectation level and the manner of response to individual behaviors.

The study led by Yanti (2012) shows that the level of parents' education affects the stress levels of pupils / students. Thus, parents with high educational level can relate positively with their children, helping them to cope with stress, whereas students whose parents do not have higher education, have higher levels of stress (Yanti, et. all, 2012).

Likewise, the family environment is the one that provides the first incentives for the child. Gradually the child internalizes them and is encouraged to engage in activities for independent reasons which he sees as important or valuable, interesting and likes engaging fully, obtaining better results (Katz, Madjar, Harari, 2014).

Parental involvement includes numerous activities (Hornby, Lafaele, 2011) such as: listening to children while reading, allocation of special time for the child to discuss outside school matters, for their homework, asking questions

regarding the child's activity at school, conversations with the child's teachers about school work as well as the frequency with which parents express their intent to learn information about the activities the child. Among the benefits of parental involvement in children's lives can include: reducing the frequency of absenteeism unjustified, attitudes, behavior and mental health of children and increased parental confidence (Hornby, Lafaele, 2011).

Support from parents, how it is perceived by students, facilitates emotional and motivational beliefs, which in turn helps improve academic achievement. Students, who describe their parents as supportive, adapt easier in terms of motivational and emotional, feeling less anxiety (Ahmed, Minnaert, van der Werf, et al., 2010). Researchers also found that parental involvement and support is related with academic achievement to a greater extent than the students' intelligence (Topor, Keane, Shelton & Calkins, 2010).

## **2. Objective and hypotheses**

### **2.1. Objective**

The present research aims to study the effects of parental involvement in child's activity on the decisive variables in achieving success in school, namely the level of self-efficacy, self-esteem and school performance.

The research aims to investigate the existent differences between the level of involvement of both parents (father, mother) and parental support perceived by the child concerning the variables listed above.

#### *2.1.1. Objective 1*

To analyze the relationships between the level of parental support, self-efficacy, self-esteem and school performance.

#### *2.1.2. Objective 2*

Identifying existing differences between the levels of perceived parental involvement and parental support perceived by the child.

### **2.2. Hypotheses**

1. We assume that there are statistically significant positive relationships between the individual studied variables (level of self-esteem, self-efficacy level, and performance level) and the level of parental involvement and support.

2. We assume that there are significant differences between students from rural and the urban areas in terms of level self-esteem, self-efficacy level and performance level.

3. We assume that there are significant differences in the level of self-esteem, self-efficacy, and performance depending on the involvement level of the mother, father, and perceived support from each parent.

### **3. Method**

#### ***3.1. Participants / Subjects***

The research was conducted with the participation of 140 students from 6 classes, which are part of three different high schools in Brasov. The lot contains 3 students aged 15 years, 117 students aged 16 years, 131 students aged 17 years, 25 students aged 18 years. Respondents in proportion of 59.2% (83) come from rural areas and 40.8% (57) participants from urban areas, 76.2% (106) are female respondents and 23.8% (34) of respondents are male.

#### ***3.2. Instruments***

The respondents and their parents were informed regarding the questionnaire and informed consent was obtained from the students' parents. The academic achievement comprises the students' scores and GPA. Also high schools headmaster gave his consent to retrieve students' scores.

##### ***3.2.1. Self-esteem***

The most used scale to measure self-esteem is Self-Esteem Scale developed by Rosemberg (1965). This indicates whether respondents believe that they possess qualities, are satisfied with themselves and their own achievements (ex. "I feel I am a valuable person, at least the same as other"). Items are scored on a 5-point Likert scale from: 1 = strongly disagree, 5 = strongly agree. Half of the items, 5 of them, are reverse scored (ex. "I wish to respect myself more"). Cronbach alpha coefficient obtained for this scale is .79.

##### ***3.2.2. Self - efficacy***

It was used a scale containing 8 items (Judge, Bono, 2003), scoring from 1 (strongly disagree) to 5 (strongly agree). Half of the items, 4 of them are scored reverse (ex. "Inside I am a weak person"). Cronbach alpha coefficient obtained for this scale is .83

##### ***3.2.3. Parent support and involvement***

The questionnaire that measures students' perception regarding the support and involvement from parents is composed of 20 items. It is grouped into four scales, such as the involvement of mother, father involvement, maternal support and paternal support. Students had to choose, between four options, the one that best described their own parents.

There are two dimensions involved in designing the questionnaire: involvement and support. The involvement describes the resources allocated to children as: being available for them, concerned about what happens to them, to know what is going on in their lives, to spend time with their own children. The size of parents support can be described as to which extent parents encourage their children to engage and make their own choices, rather than applying pressure or incentives to control children's behavior (Grolnick, Ryan, So, 1991). Cronbach alpha coefficient obtained for this scale is .81

#### 4. Results

Table 1 shows the relations found between fathers and mothers support, self-esteem and average scores for the compulsory subject averages (Romanian, English, French, Mathematics, Physics, Chemistry, Biology, History, Geography, Music and Logics) and GPA. The first positive strong correlation is found between fathers and mothers support ( $r=0.28$ ,  $p \leq 0.001$ ). This relation shows that fathers support the involvement and support of the mother, but do not contribute actively, and do not have an impact on their child's academic achievement seeing that there is no other correlation between fathers support and any other variable. As regards mothers support there is a strong and positive relation with self-esteem ( $r=0.27$ ,  $p \leq 0.001$ ). The higher the supportive behaviors of the mother are, the higher the level of self-esteem of the adolescent will have. Self-efficacy is also correlated with mothers supportive behaviors ( $r=0.22$ ,  $p \leq 0.001$ ), which indicates a higher level of self-efficacy of adolescent who have mothers with high supportive behaviors.

Table no. 1

	Mothers Support	Self-esteem	Self-efficacy	GPA	Rom	Engl	Fr	Mat	Phy	Chem	Biol	Hist	Geog	Mus	Log
Fathers Support	<b>.28**</b>	.080	.076	.070	.036	.027	-.054	.056	.018	.029	.081	-.064	.067	.000	.121
Mothers Support	1,00	<b>.27**</b>	<b>.22**</b>	<b>.23**</b>	.082	.072	.029	.078	<b>.22**</b>	<b>.18*</b>	<b>.23**</b>	.031	<b>.15*</b>	.047	<b>.17*</b>
Self-esteem		1,00	<b>.74**</b>	.053	-.029	.039	-.024	.027	<b>.15*</b>	.026	.023	-.031	.078	-.039	-.006

\* $p < .05$ , \*\* $p < .01$

Correlations can be found between mothers supportive behaviors and GPA ( $r=0.23$ ,  $p\leq 0.001$ ), Physics ( $r=0.22$ ,  $p\leq 0.001$ ), Chemistry ( $r=0.18$ ,  $p\leq 0.05$ ), Biology ( $r=0.23$ ,  $p\leq 0.001$ ), Geography ( $r=0.15$ ,  $p\leq 0.05$ ) and Logic ( $r=0.17$ ,  $p\leq 0.05$ ). This indicates that students with supportive mothers do better at science. Not the involvement from parents is what makes the difference but rather the support, the step beyond involvement, letting the teen to make his own mistakes, the mothers intuition regarding her child, she feels when something bothers him and knows what he will choose or what he wants.

There were identified significant differences in terms of environment of origin of participants. Thus in significant differences were found regarding overall average in such that the mean scores of respondents from rural areas ( $M = 8.68$ ,  $SD = 0.60$ ) were significantly higher ( $t = -2.983$ ,  $df = 138$ ,  $p\leq 0.003$ ) than the average scores of the participants who reside in urban areas ( $M = 8.45$ ,  $SD = 0.69$ ). In terms of self-esteem, self-efficacy, mother and the father involvement as well as the support from the mother and father, there were not identified significant differences between respondents who reside in the urban areas and those in rural areas (Table No. 2).

Significant differences were found in terms of the disciplines averages of English, Mathematics, Chemistry, Biology and Geography. Therefore, in the case of the English Language course, the mean scores of the respondents originating from rural areas ( $M = 8.29$ ,  $SD = 1.08$ ) were significantly higher ( $t = -2.448$ ,  $df = 138$ ,  $p = 0.015$ ) than the mean scores of the participants originating from urban areas ( $M = 7.93$ ,  $SD = 1.31$ ). In the case of the average scores at Mathematical discipline the respondents who come from rural ( $M = 7.26$ ,  $SD = 1.54$ ) have a significantly higher mean scores ( $t = -2.795$ ,  $df = 138$ ,  $p = 0.006$ ) than the scores of participants who come from urban areas ( $M = 6.75$ ,  $SD = 1.43$ ).

Regarding discipline Chemistry the mean scores of the respondents originating from rural areas ( $M = 7.54$ ,  $SD = 1.25$ ) were significantly higher ( $t = -2.794$ ,  $df = 138$ ,  $p = 0.006$ ) than the mean scores of the participants that come from urban areas ( $M = 7.08$ ,  $SD = 1.43$ ). Within the discipline Biology, the mean scores of the respondents originating from rural areas ( $M = 9.07$ ,  $SD = 1.01$ ) were significantly higher ( $t = -2.947$ ,  $df = 138$ ,  $p = 0.004$ ) than the mean scores of participants who come from urban areas ( $M = 8.65$ ,  $SD = 1.28$ ). Regarding the Geography discipline the average scores of the respondents that come from rural areas ( $M = 8.10$ ,  $SD = 1.34$ ) were significantly higher ( $t = -2.513$ ,  $df = 138$ ,  $p = 0.013$ ) than the mean scores of the participants that come from urban areas ( $M = 7.67$ ,  $SD = 1.47$ ). Therefore respondents who reside in rural areas have higher average overall average in

subjects that include English, Mathematics, Chemistry, Biology and Geography, than respondents from urban areas.

The level of maternal involvement in participants' lives cause significant differences in terms of self-esteem, Self-efficacy, and the average at Geography discipline. Regarding Self-esteem, the mean scores of the respondents who perceive a involvement above average from the mother (M = 39.53, SD = 6.20) were significantly higher (t = 3.295, df = 138, p = 0.001) than the mean scores of participants who perceive a below average maternal involvement (M = 36.85, SD = 6.91).

Regarding Self-efficacy, the mean scores of the respondents who perceive an involvement above average from the mother (M = 24.66, SD = 3.84) were significantly higher (t = 2.701, df = 138, p = 0.008) than the mean scores of participants who perceive a below average maternal involvement (M = 23.09, SD = 4.95). Therefore, respondents who perceive mothers as being involved in their lives have a level of self-esteem and self-efficacy significantly higher. Regarding the average scores of the respondents at the Geography discipline, the students who perceive an involvement from the mother above average (M = 8.08, SD = 1.39) were significantly higher (t = 2.416, df = 138, p = 0.016) than average scores of participants who perceive a below average maternal involvement (M = 7.65, SD = 1.40). Thus, respondents who perceive an above average maternal involvement have higher average at the Geography discipline.

Table no. 2

	Levene's Test for Equality of Variances		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		Environment	Mean	Std. Dev.	Std. Error M
	F	Sig.						Lower	Upper				
	Self-esteem	.263						.608	.901				
										Rural	38.29	6.68	.52
Self-efficacy	.048	.826	.927	138	.355	.490	.528	-.550	1.530	Urban	24.40	4.42	.41
										Rural	23.91	4.25	.33
Mothers involvement	.045	.832	-.746	138	.456	-.221	.296	-.803	.362	Urban	16.76	2.28	.21
										Rural	16.98	2.50	.19



Mothers support	.605	.437	-.720	138	.472	-.238	.330	-.888	.412	Urban	11.82	2.55	.24
										Rural	12.06	2.80	.21
Father involvement	.106	.745	-.640	138	.523	-.324	.507	-1.322	.673	Urban	13.31	4.36	.41
										Rural	13.63	3.99	.31
Fathers support	.374	.542	-.019	138	.985	-.009	.452	-.898	.881	Urban	12.35	3.88	.36
										Rural	12.35	3.55	.27
GPA	2.272	.133	-2.983	138	.003	-.233	.078	-.3883	-.079	Urban	8.45	.69	.06
										Rural	8.68	.60	.04
Romanian	2.135	.145	-.518	138	.605	-.076	.148	-.368	.215	Urban	8.42	1.28	.12
										Rural	8.50	1.15	.09
English	6.542	.011	-2.448	138	.015	-.354	.144	-.639	-.069	Urban	7.93	1.31	.12
										Rural	8.29	1.08	.08
French	1.099	.295	-.321	138	.748	-.058	.183	-.420	.302	Urban	7.43	1.45	.13
										Rural	7.49	1.52	.11
Mathematics	1.882	.171	-2.795	138	.006	-.513	.183	-.874	-.151	Urban	6.75	1.43	.13
										Rural	7.26	1.54	.12
Physics	.769	.381	-.587	138	.558	-.080	.136	-.348	.188	Urban	7.25	1.15	.10
										Rural	7.33	1.09	.08
Chemistry	3.830	.051	-2.794	138	.006	-.454	.162	-.774	-.134	Urban	7.08	1.43	.13
										Rural	7.54	1.25	.09
Biology	12.800	.000	-2.947	138	.004	-.426	.144	-.711	-.141	Urban	8.65	1.28	.12
										Rural	9.07	1.01	.08
History	2.588	.109	-.953	138	.342	-5.909	6.202	18.119	6.300	Urban	8.25	1.33	.12
										Rural	14.16	65.88	5.14
Geography	2.329	.128	-2.513	138	.013	-.429	.170	-.766	-.093	Urban	7.67	1.47	.139
										Rural	8.10	1.34	.104

The level of involvement from the father in participants' lives determines significant differences in terms of Self-esteem, in such the mean scores of the respondents who perceive a paternal involvement above average ( $M = 39.28$ ,  $SD = 6.80$ ) were significantly higher ( $t = 2.013$ ,  $df = 138$ ,  $p = 0.045$ ) than the mean scores of participants who perceive a below average paternal

involvement ( $M = 37.68$ ,  $SD = 6.18$ ). Respondents who perceive their fathers as involved in their lives have a level of self-esteem significantly higher.

The level of support from the mother determines significant differences in terms of Self-esteem, Self-efficacy, GPA and the average scores at Physics, Chemistry, and Biology. Regarding Self-esteem the mean scores of the respondents who perceive a support above average from the mother ( $M = 39.56$ ,  $SD = 6.45$ ) were significantly higher ( $t = 2.945$ ,  $df = 138$ ,  $p = 0.004$ ) than the mean scores of participants who perceive a below average maternal support ( $M = 37.23$ ,  $SD = 6.54$ ). Regarding Self-efficacy the mean scores of the respondents who perceive a support above average from the mother ( $M = 24.70$ ,  $SD = 4.15$ ) were significantly higher ( $t = 2.755$ ,  $df = 138$ ,  $p = 0.006$ ) than the mean scores of participants who perceived support below average from the mother ( $M = 23.27$ ,  $SD = 4.42$ ). Therefore, respondents who perceive mothers as being supportive have a level of self-esteem and self-efficacy significantly higher.

Regarding GPA average scores of the respondents who perceive a support above average from the mother ( $M = 8.68$ ,  $SD = 0.59$ ) were significantly higher ( $t = 2.964$ ,  $df = 138$ ,  $p = 0.003$ ) than the mean scores of participants who perceive a below average maternal support ( $M = 8.45$ ,  $SD = 0.70$ ). Thus, respondents who perceive their mothers as being supportive have above average overall GPA scores. Regarding the average scores at the Physics discipline the mean scores of the respondents who perceive a maternal support above average ( $M = 7.44$ ,  $SD = 1.06$ ) were significantly higher ( $t = 2.533$ ,  $df = 138$ ,  $p = 0.012$ ) than average scores of the other participants ( $M = 7.10$ ,  $SD = 1.15$ ). In the case of the average scores at the Chemistry discipline the mean scores of the respondents who perceive a maternal support above average ( $M = 7.49$ ,  $SD = 1.28$ ) were significantly higher ( $t = 2.059$ ,  $df = 138$ ,  $p = 0.040$ ) than the mean scores of the other group ( $M = 7.16$ ,  $SD = 1.41$ ). Regarding the average at the discipline Biology the mean scores of respondents who perceive a maternal support above average ( $M = 9.11$ ,  $SD = 0.99$ ) were significantly higher ( $t = 3.593$ ,  $df = 138$ ,  $p = 0.000$ ) than average scores of the second group ( $M = 8.60$ ,  $SD = 1.28$ ). Therefore, respondents who perceive their mothers as being supportive have the average scores at Physics, Chemistry and Biology significantly higher than respondents who perceive their mothers as less supportive. The perceived level of support from the father experienced by the participants does not determine any significant difference.

## 5. Conclusions

The purpose of this study was to examine the relationships between parental support and the level of self-efficacy, self-esteem and school performance, and to identify the existing differences between the levels of perceived parental involvement and parental support perceived by the child. The results indicate a link between the support of father and the involvement, the support provided by the mother. In other words, the father is not actively involved directly in supporting the child, but rather indirectly through support giving to the mother. Therefore, as the mother offers more support and involvement, the child level of self-esteem and self-efficacy will be higher. The father involvement in the participants' lives determines a higher level of self-esteem.

The involvement and support of parents do not cause significant differences in self-esteem and self-efficacy between students who come from urban areas and the rural. Instead significant differences were found between these two groups in the level performance in the subjects as: English, Mathematics, Chemistry, Biology and Geography. The level of maternal support determines a significant increase in terms of the level self-esteem, self-efficacy, general average, the averages in Physics, Chemistry and Biology to all participants, while support from the father does not cause any significant improvement. It is possible that a more detailed analysis will find factors that influence the motivation to engage in learning such as: material resources available, actions of parents with their children in non-formal and informal learning activities. This is why we consider necessary to continue this research with a broader spectrum of actions and family activities that can influence self-esteem, self-efficacy and academic achievement of students.

## References

- Ahmed, W., Minnaert, A., van der Werf, G. et al. (2010). Perceived Social Support and Early Adolescents' Achievement: The Mediation Roles of Motivational Beliefs and Emotions. *Journal of Youth and Adolescence*, 39: 36. DOI:10.1007/s10964-008-9367-7
- Baccus, J. R., Baldwin, M. W., Packer, D. J. (2004). 'Increasing Implicit Self-esteem through Classical Conditioning'. *American Psychological Society*, 15(7). <http://www1.appstate.edu/~kms/classes/psy5150/>
- Baram-Tsabari, A., Yarden, A. (2009), Identifying meta-clusters of students' interest in science and their change with age. *J. Res. Sci. Teach.*, 46: 999–1022. doi:10.1002/tea.20294
- Bono, J. E., & Judge, T. A. (2003). Core self-evaluations: A review of the trait and its role in job satisfaction and job performance. *European Journal of Personality*, 17(S1), S5-S18.

- Brown, S. D., Tramayne, S., Hoxha, D., Telander, K., Fan, X., Lent, R. W. (2008). Social cognitive predictors of college students' academic performance and persistence: A meta-analytic path analysis. *Journal of Vocational Behavior*, 72, 298–308.
- Chemers, M. M., Hu, L., Garcia, B. F. (2001). Academic self-efficacy and first-year college student performance and adjustment. *Journal of Educational Psychology*, 93, 55- 64. doi: 10.1037//0022-0663.93.1.55
- Cheung, Cecilia Sin-Sze; Pomerantz, Eva M. (2012). Why does parents' involvement enhance children's achievement? The role of parent-oriented motivation. *Journal of Educational Psychology*, 104(3), 820-832. <http://dx.doi.org/10.1037/a0027183>
- Clark, M. H., Middleton, S. C., Nguyen, D., Zwick, L. K. (2014). Mediating relationships between academic motivation, academic integration and academic performance. *Learning and Individual Differences*, 33, 30-38, ISSN 1041-6080, <http://dx.doi.org/10.1016/j.lindif.2014.04.007>.
- Dahl, T. I., Bals, M., Turi, A. L. (2005). Are students' beliefs about knowledge and learning associated with their reported use of learning strategies? *British Journal of Educational Psychology*, 75, 257–273.
- Dale, H. S., Pintrich, P. R., & Meece, J. L. (2008). *Motivation in education: theory, research and applications*. Upper Saddle River, NJ. Pearson Education, cop.
- De Caroli, M. E., Sagone, E. (2014). Generalized Self-efficacy and Well-being in Adolescents with High vs. Low Scholastic Self-efficacy. *Procedia - Social and Behavioral Sciences*, 141, 867-874, ISSN 1877-0428, <http://dx.doi.org/10.1016/j.sbspro.2014.05.152>.
- Duckworth, A. L., Seligman, M. E. P. (2005). Self-discipline outdoes IQ in predicting academic performance of adolescents. *Psychological Science*, 16, 939–944
- Eysenck, H. J., Eysenck, S. B. G. (1968). *Manual of Eysenck Personal and Industrial Testing Service*.
- Fan W., Williams C. M., Wolters C.A. (2012). Parental Involvement in Predicting School Motivation: Similar and Differential Effects Across Ethnic Groups. *The Journal of Educational Research*, 105(1), 21-35. DOI: 10.1080/00220671.2010.515625
- Farrington, C. A., Roderick, M., Allensworth, E., Nagaoka, J., Keyes, T. S., Johnson, D. W., Beechum, N. O. (2012). Teaching adolescents to become learners. The role of noncognitive factors in shaping school performance: A critical literature review. Chicago: University of Chicago Consortium on Chicago School Research.
- Fortus, D. and Vedder-Weiss, D. (2014). Measuring students' continuing motivation for science learning. *J Res Sci Teach*, 51: 497–522. doi:10.1002/tea.21136

- Galla, B. M., Wood, J. J., Tsukayama, E., Har, K., Chiu, A. W., Langer, D. A., (2014). A longitudinal multilevel model analysis of the within-person and between-person effect of effortful engagement and academic self-efficacy on academic performance. *Journal of School Psychology*, 52(3), 295-308, ISSN 0022-4405, <http://dx.doi.org/10.1016/j.jsp.2014.04.001>.
- Ghazvini, S.D., Khajehpour, M. (2011). Gender differences in factors affecting academic performance of high school students. *Procedia - Social and Behavioral Sciences*, 15, 1040-1045. ISSN 1877-0428, <http://dx.doi.org/10.1016/j.sbspro.2011.03.236>.
- Glynn, S. M., Brickman, P., Armstrong, N. and Taasoobshirazi, G. (2011), Science motivation questionnaire II: Validation with science majors and nonscience majors. *J. Res. Sci. Teach.*, 48: 1159–1176. doi:10.1002/tea.20442
- Gorrese, A., Ruggieri, R. (2013). Peer attachment and self-esteem: A meta-analytic review. *Personality and Individual Differences*, 55, 559–568. <http://dx.doi.org/10.1016/j.paid.2013.04.025>
- Herman, W. E., & Nelson, G. C. (2009). A researcher's dilemma: A comparison of estimated versus actual college GPA. In *NERA Conference Proceedings*, 12. Retrieved from <http://files.eric.ed.gov/fulltext/ED508214.pdf>
- Hill, N. E., & Taylor, L. C. (2004). Parental school involvement and children's academic achievement pragmatics and issues. *Current directions in psychological science*, 13(4), 161-164.
- Hornby G., Lafaele R. (2011). Barriers to parental involvement in education: an explanatory model, *Educational Review*, 63:1, 37-52. DOI: 10.1080/00131911.2010.488049
- Judge, T. A, Bono, J. E. (2003). Core Self-Evaluations: A Review of the Trait and its Role in Job Satisfaction and Job Performance. *European Journal of Personality*, 17: S5–S18 DOI: 10.1002/per.481
- Katz, I., Madjar, N., Harari, A. (2014). Parental Support and Adolescent Motivation for Dieting: The Self-Determination Theory Perspective. *The Journal of Psychology: Interdisciplinary and Applied*, 0(0), 1-19, DOI: 10.1080/00223980.2014.903890
- Komarraju, M., Nadler, D. (2013). Self-efficacy and academic achievement: Why do implicit beliefs, goals, and effort regulation matter? *Learning and Individual Differences*, 25, 67-72, ISSN 1041-6080, <http://dx.doi.org/10.1016/j.lindif.2013.01.005>.
- Mehjabeen, K. (2013). "Academic Self-Efficacy, Coping, and Academic Performance in College," *International Journal of Undergraduate Research and Creative Activities* 5, Article 4. DOI: <http://dx.doi.org/10.7710/2168-0620,1006>

- Nurmi, J. E. (2012). Students' characteristics and teacher-child relationships in instruction: A meta-analysis. *Educational Research Review*, 7(3), 177-197. <http://dx.doi.org/10.1016/j.edurev.2012.03.001>
- Pajares, F., Schunk, D. H. (2001). Self-beliefs and school success: Self-efficacy, self-concept, and school achievement. In R. Riding & S. Rayner (Eds.). *Self perception* (239-266). London: Ablex.
- Pomerantz, E. M., Moorman, E. A., & Litwack, S. D. (2007). The how, whom, and why of parents' involvement in children's academic lives: More is not always better. *Review of educational research*, 77(3), 373-410.
- Poropat, A. E. (2014). Other-rated personality and academic performance: Evidence and implications. *Learning and Individual Differences*, 34, 24-32. <http://dx.doi.org/10.1016/j.lindif.2014.05.013>
- Richardson, M., Abraham, C., Bond, R. (2012). Psychological correlates of university students' academic performance: a systematic review and meta-analysis. *Psychological bulletin*, 138(2), 353.
- Salami, S. O., Ogundokun, M. O. (2009). Emotional intelligence and self-efficacy as predictors of academic performance. *Perspectives in Education*, 25 (3), 175-185.
- Topor D. R., Keane S. P., Shelton T. L., Calkins S. D. (2010) Parent Involvement and Student Academic Performance: A Multiple Mediation Analysis. *Journal of Prevention & Intervention in the Community*, 38:3, 183-197. DOI: 10.1080/10852352.2010.486297
- Urdan, T., Solek, M., & Schoenfelder, E. (2007). Students' perceptions of family influences on their academic motivation: A qualitative analysis. *European Journal of Psychology of Education*, 22(1), 7-21.
- Yanti, R., Hidayatulfathi, O., Ismarulyusda, I., Syarif, H. L., Nur, Z. M. S., Baharudin O. (2012). Self-esteem and academic performance relationship amongst the second year undergraduate students of Universiti Kebangsaan Malaysia, Kuala Lumpur Campus. *Procedia - Social and Behavioral Sciences* 60, 582 – 589.