Motivational Goals and Academic Performance from the Perspective of Students' Perceived Quality of Relationship with Their Class Teachers at the Start of the Upper Secondary Education Level

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Student's Transition to the Secondary Education Level

The transition to the secondary education level represents a new educational and social environment for an adolescent. Each adolescent meets peers and teachers previously unknown to them, and in addition, the upper secondary education level[1] environment is much more academically oriented and focused on educational achievements in comparison with the primary education. Gutman and Eccles (2007) stated that this transition to the new form of education is one of the most important life changes for the adolescent beside puberty, cognitive development and changes in family and friendship relationships which all play an important role in adolescents' further development.

Various studies show that adolescents – upon entering a new school environment – are likely to deal with lower levels of confidence in establishing new relationships and perceive a poorer social support from teachers and peers (Bronfenbrenner, 1979; Eccles & Midgley, 1989; Wentzel, 1998); lower motivation for learning and lower educational achievements (Barber & Olsen; 2004; Eccles et al., 1993; Eccles, 2004; Gutman & Midgley, 2000; Wigfield & Eccles, 1994); as well as can have poorer endeavor for attending classes (Elias, Gara & Ubriaco, 1985). Beside, some authors (e.g. Bronfenbrenner, 1979; Eccles & Midgley, 1989; Wentzel, 1998) point out that interpersonal relationships play an important role in an adolescent's adaptation to the

1 In Slovenia the education system consists of uniformed 9-year primary school and secondary school. This means that secondary education level often described in the literature is equivalent to grades 6-9 of Slovenian primary school and not to Slovenian upper secondary education level. This is why we make a distinction between secondary and upper secondary education level.

new school environment, as they affect motivation for learning, academic achievements and adapted learning behaviour.

Authors (Maulana, Opdenakker, Den Brook & Bosker, 2012; Wentzel, 1994) who studied changes in relationship of adolescents with their teacher at the transition to the secondary education level, have found that adolescents and teachers establish a certain level of mistrust at the start of the new educational journey, as both of them only get to know each other; and that adolescents in general perceive less opportunities for establishing more confident relationships with their teachers as they had on the primary school level. The authors see this initial mistrust in the relationship between adolescents and teachers as one of the most important reasons for the decrease in the motivation for learning and academic achievements.

Results of some studies (e.g. Rueger, Malecki & Demaray, 2010; Sawyer, Pfeiffer & Spence, 2009) also show that girls are more sensitive to the transition to the upper secondary education level than boys and perceive this transition as more stressful.

The Quality of Student-Teacher Relationship

In this study, we wanted to explore the quality of teacher-student relationship from point of socio-emotional support as perceived by students[2]. We used Weiss' definition of social support (1988) which includes all important elements of the above mentioned features of social support, i.e. the function of socialising, and the emotional, instrumental and informational aspects of a social support: *a)* stable attachment which gives us the feeling of emotional security and closeness (emotional support); *b)* social integration or sense of belonging and closeness with the similarly thinking individuals (emotional support and socialising); *c)* altruism or the need to care for others (emotional support); *d)* providing a reciprocal approval, including a mutual stimulation of confidence and affirmation of one's own worth (emotional support); *e)* a reliable alliance which is related to the reliable availability of a social environment if help at resolving everyday problems is needed (or instrumental help); and f) guidance in case of any stressful developments or danger in the form of advice, direction or efficient strategies in resolving problems (informational support). According to Weiss, an individual will perceive appropriate support from the environment and will not feel isolated if they has an access to all six above mentioned sources to fulfil their social needs in his social environment (Cutrona & Russell, 1987; Furman & Buhrmester, 1985; Greggo, 2008).

2 Since we discuss the relationship between adolescents and teachers (i.e. in educational context), in the following sections adolescents are referred to as students.

However, different studies show that students more often seek for the instrumental and informational support of the teacher and less often for the emotional one (Darling, Hamilton & Niego, 1994; Furman & Buhrmester, 1985; Lempers & Clark-Lempers, 1992). Boys are especially keener to seek informational support in their relationship with teachers whereas girls more often turn to teachers for emotional support and also tend to report of higher levels of such support in their relationship (Kerr, Preuss & King, 2006; Rueger, Malecki & Demaray, 2010; Sawyer, Pfeiffer & Spence, 2009; Sontag & Graber, 2010).

What we are interested here is, to what extent is the teacher's socio-emotional support present in the first year of an upper secondary school level education and how it relates to students' academic motivation and achievement.

The Quality of Student-Teacher Relationship and Academic Achievement

In his theoretical model of a relationship between a teacher and a student,[3] Pianta (Pianta, Hamre & Stuhlman, 2003) defines a good-quality relationship as a key factor contributing to the student's academic achievements, and stresses the importance of the teacher's socio-emotional support. Such support stimulates the individual's socio-emotional development and is of particular importance for students with learning and behavioural difficulties. Pianta also pointed out that the importance of a good-quality relationship with the teacher does not diminish with student's growing up, and that the teacher's socio-emotional support is important in the times of transition to the higher levels of education.

An upper secondary school teacher, who shows emotional warmth and acceptance and is there for their students, stimulates students' learning interests which in turn is shown in better academic achievements and vice versa. Students who report higher levels of conflict and negative interactions in their relationships in their school environment on average report of lower academic achievements (Berndt & Keefe, 1996; Pianta, Hamre & Stuhlman, 2003; Wentzel & Caldwell, 1997; Wentzel, 2012).

An interesting study done by Košir (2013) revealed that even young teachers in Slovenia still believe in a stereotype that teacher's warm, supportive and caring relationships with his students result in poorer achievements of educational goals. However, studies from the past decade show the opposite. Various Slovenian and foreign researchers (e.g. Connell &

3 Peklaj and Pečjak (2015) state that we find only Pianta's theoretical model for explaining a relationship between a teacher and a pupil in the field of educational psychology, despite the importance of this relationship.

Wellborn, 1991; Deci, 1992; Gregory & Weinstein, 2004; Magajna, Kavkler, Čačinovič-Vogrinčič, Pečjak & Bregar, 2008; Pianta & Walsh, 1996; Wentzel, 1997) established – their conclusions are based on the findings from the studies exploring the quality of students' relationships in educational context – that a student's perception of socio-emotional support by their teacher is very important for achieving their learning goals.

A teacher's emotional support hence plays an important role in improving students' learning adjustment.

The Quality of Student-Teacher Relationship and Motivation for Learning

In their model of academic motivation, Darling and Steinberg (1993) pointed out that the teacher's emotional support was an important motivational factor in an educational situation. In other words, it is important that the teacher offers the student an opportunity for a supportive and mutual relationship beside rules and expectations the teacher has for an individual. Teacher's expectations regarding academic achievements and behaviour are the most effective if expressed within emotionally positive and thoughtful relationship (Wentzel, 1997, 2002, 2003, 2012). Pupils thus find it easier to identify with the teacher's values which gradually become their own motivation for learning. In addition, the socio-emotional support by the teacher strengthens the young person's sense of connectedness and belonging to the school, and as such stimulates their motivation for learning that consequently contributes to better academic achievements. The motivation for learning stretches beyond the contextual factors in a school and classroom – it is mainly a result of a successful socialization processes, including the good-quality relationships between teachers and students.

Recent studies (e.g. Crosnoe, Johnson & Elder. 2004; Gregory et al., 2010; Murdock & Miller; 2003; Wentzel, 1997; Wentzel, 2012, Wentzel, Russell & Baker, 2015) confirmed the importance of the following aspects of a relationship with a teacher which contribute to a student's better motivation for learning: a confidential relationship with students, aspiration to link the school curriculum with students' interests, and a balance between awarding achievements and emphasizing the importance and value of a learning experience. The results further show that the perception of a teacher to be supportive to some extent depends on the students' school curriculum and students' learning abilities. Students from a general upper secondary school perceive a supportive teacher as a person who encourages them to tackle new challenges and to cooperate within the class, while for students from vocational schools a teacher has to be above all kind and

just; be able to explain subject matter clearly and to maintain order in the classroom (Daniels & Araposthatis, 2005).

Student's Motivational Orientation

Since we are interested in the effects of teacher-student relationship on students' motivational orientation in the context of students' transition to the secondary school level education, we used the achievement goal theory to investigate motivational goals in academic environment (Elliot, McGregor & Gable, 1999; Harackiewicz & Elliot, 1993; Middleton & Midgley, 1997). According to this theory, it is the motivation goals and not final results that give a meaning to active performance in a certain learning situation for an individual (Maehr & Zusho, 2009). The two most important motivational goals within the framework of this theoretical concept (Elliot et. al, 1999; Harackiewicz & Elliot, 1993; Middleton & Midgley, 1997) are: *i) mastery goals* and the development of one's own abilities, and *ii) performance goals* of showing and comparing one's own abilities. The latter represent self-presentation goals which can be further divided into performance-approach goals and performance-avoidance goals.

Student's Motivational Orientation and Academic Achievement

Various studies in Slovenia and abroad show that the correlation between students' motivational goals and academic achievements is ambiguous. Peklaj and her colleagues (Peklaj et al., 2009) studied the effects of motivational orientations on learning achievements (Mathematics, Slovene language and final academic achievement). The study included Slovenian pupils (grade eight of primary school) and secondary school students (third year of upper secondary school). The results show that mastery goal orientation is importantly related to higher marks in Mathematics in the former group (similar finding in the study of Puklek Levpušček & Zupančič (2009)), and to higher marks in the Slovene language and Mathematics in the latter group. Performance goal orientation of students in secondary school was connected with better achievements in both subjects. The same holds for the individual's performance-avoidance goal orientation in Mathematics. The authors therefore point out that correlations between motivational orientation and achievements show significant differences according to the learning context (e.g., more achievement oriented secondary school environment).

These findings are supported by some other studies (e.g., Linnenbrink-Garcia, Tyson & Patall, 2008; Zusho, Karabenick, Bonney & Sims, 2008) where the researchers established that the correlation between mas-

tery goals and academic achievement does not differ from the correlation between performance goal and educational achievements in the school contexts where marks serve as a criterion for measuring academic success. Although the correlations between mastery goals and academic achievements are in general positive, regression analyses do not show that such motivational orientation would be a clear indicator of learning achievements, especially if the researchers took the individual's previous learning achievements into account. This of course poses a question (Maehr & Zusho, 2009), to what extent are the individuals with mastery goals orientation even motivated for achieving high marks and to what extent can marks even be a real indicator of an individual's abilities.

In their literature review of the effects of individual's motivational orientation on learning achievements, Maehr and Zusho (2009) establish that the majority of studies used marks as a criterion for evaluating individual's abilities. They further state that such an approach ignores the contextual factors that influence the individual's motivational orientation. They – similar to the authors of the above mentioned studies – establish that the results of the studies exploring correlations between the individual's motivational goals, other aspects of motivation and academic achievements, are rather unified regarding an individual's mastery goals and performance-avoidance goals: the individual's mastery orientation strengthens his interest for a certain learning field and meta-cognitive learning strategies use (e.g. Elliot et al., 1999; Pintrich, 2000), and while it is true that the performance goals orientation has a positive effect on the individual's motivation and academic achievements, students with this kind of motivational orientation generally express a higher level of anxiety in learning situations and a poorer interest for the subject (e.g. Church, Elliot & Gable, 2001; Elliot & Church, 1997). As Grolnick and her colleagues (Grolnick, Friendly & Bellas, 2009) claim, we witness a significant difference between those with the mastery goals orientation and those with the performance goals orientation which is expressed in the fact that the latter lacks the autonomous motivation in the sense of interest for an in-depth learning of a certain subject, although they show similar positive learning self-image and on average achieve good academic performance.

Aims and Hypotheses

In the present study we want to examine students' perceived socio-emotional support of their class teacher because the effects of interpersonal relationships on students' learning adjustment during the transition to upper secondary school has not been profoundly researched yet. We assume

that interpersonal relationships are an important factor in the student's adaptation to a new educational environment, as they are connected to the student's motivation for learning and consequently to their learning achievements and adapted learning behaviour (e.g. Bronfenbrenner, 1979; Eccles & Midgley, 1989; Wentzel, 1998). Different authors have already confirmed the effects of emotional closeness, connection and affection in the student-teacher relationship on the student's motivation for learning and the learning achievements (e.g. Armenta, Knight, Carlo & Jacobson, 2011; Brittain et al., 2013; Gregory & Weinstein, 2004; Spera, 2006; Wentzel et al., 2015). However, in most research, the motivation for learning is explored mainly from the aspect of the student's interest for learning. Students that receive more affection, support and positive attitude from a teacher, have a greater interest in learning and feel more competent, and consequently show better learning achievements (Midgley, Feldlauffer & Eccles, 1989; Roeser, Eccles & Sameroff, 1998; Ryan & Grolnick, 1986). Some studies (e.g. Bouffard, Boileau & Vezeau, 2001; Eccles, Midgley & Adler, 1984) also show significant changes in student motivational orientation when entering secondary school, especially negative changes in mastery goal orientation. The results show that one of the reasons for such changes lie in student's social experiences encouraged by systematic changes in their school environment that are in contrast with student's increased competency and social maturity, e.g. more closed, controlled teacher-dominated and formal school environment, teaching practices that provide students with lower sense of autonomy and control, and external reward system. However, there is less research examining students' perceptions of teacher's support when entering secondary educational level and their motivational orientation in this period. We are also interested in investigating the predictive power of student's perceived socio-emotional support and negative interactions in their relationship with the class teacher when predicting student's motivational orientation and academic performance, while controlling for educational programme and gender.

Based on previous research we formed the following hypotheses: *i)* students will report relatively low levels of perceived socio-emotional support in relationship with their class teacher and relatively high levels of performance goal orientation, *ii)* there are significant differences in perceived socio-emotional support and motivational orientation between students from different educational programmes, *iii)* there are significant gender differences in perceived socio-emotional support and motivational orientation, *iv)* perceived teacher socio-emotional support is an impor-

tant predictor of student's motivational orientation and academic performance when controlling for enrolled educational programme and gender.

Method

Participants

Students that participated in this research also participated in the PISA 2012 research. The PISA research in Slovenia includes all secondary school programmes; within the programme among all the 15-year-olds approximately 30 students are randomly chosen. We kept the sample of randomly chosen students within educational programmes and randomly selected 56 programmes to participate in our study. 47 of the 56 invited educational programmes decided to participate.

The study included 602 students enrolled in their first grade of different upper secondary school programmes. Their mean age was 15.5 years. A little less than half of the sample were female students (N = 272; 45.2%) and more than half were male students (n = 330; 54.8%). Students attended technical education programmes (n = 260; 43.2%), general gymnasium (n = 139; 23.1%), vocational education programmes (n = 95; 15.8%), gymnasia specialist (n = 75; 12.5%), while the least of participating students were from short-term vocational education programmes (n = 33; 5.5%).

Instruments

Quality of the Student-Teacher Relationship

For establishing the quality of student and class teacher relationships, we used the Network of Relationship Inventory questionnaire (NRI, Furman and Buhrmester, 1985). The questionnaire consists of 33 items to which students answered according to a five-point Likert-type scale (from 1 - a little or not at all, to 5 - mostly), and measures the quality of the student's relationship with their parents, their best friend and their teacher. For the purposes of this research only the student's evaluation of the relationship with the teacher were used. The questionnaire includes 11 subscales that describe socio-emotional support in a relationship: *i) socialising*, referring to the frequency of the adolescent's socialising with a certain person (e.g. *How much of your free time do you spend with this person?*), *ii) intimate disclosure* in a relationship, referring to the degree of the student's trusting intimate information to a class teacher (e.g. *How much do you tell this person?*), *iii) instrumental aid*, referring to the degree of help the student feels they receive from the class teacher (e.g. *How much does this person help you figure out or fix things?*), *iv) nurturance (e.g. How much do you protect and look out for this person?), v) approval*, referring to how much the student feels approved, respected and admired by the class teacher or how

much they feel their actions are approved, respected and admired (e.g. *How much does this person treat you like you're admired and respected?*), *vi) reliable alliance*, referring to the student's perception of relationship stability and durability (e.g. *How sure are you that your relationship will last in spite of fights?*), *vii) affection* that the student feels he receives from the class teacher (e.g. *How much does this person really care about you?*), *viii) satisfaction with a relationship*, referring to the student's general evaluation of satisfaction with a relationship with a class teacher (e.g. *How satisfied are you with your relationship with this person?*), *ix) antagonism*, referring to the student's perception of tension in a relationships (e.g. *How much does this person punish you?*) *x) conflict*, referring to the student's evaluation of contradiction, conflict and quarrel frequency in a relationship (e.g. *How much do you and this person disagree and quarrel?*), and *xi) relative power*, referring to the student's perception of his autonomy and subordination within the relationship (e.g. *Who tells the other person what to do more often, you or this person?*). Each subscale contains three items.

In the research literature, we did not identify any information referring to psychometric properties of the already mentioned subscales in a student-teacher relationship. According to the preliminary study results we decided to eliminate the subscale that refers to the student's socialising with the class teacher, because of low inter-item correlations in our sample. After reviewing the content of items we established that the items did not reflect the student-teacher relationship in Slovenian cultural environment. All of the other scales show moderately good internal consistency in our sample, that is the coefficient alpha values range between $\alpha = 0.73$ and $\alpha = 0.87$. Furman and Buhrmester (1985) found that the aforementioned subscales constitute two higher-order factors: socio-emotional support and negative interactions in a relationship. The authors did not identify the psychometric properties for those two scales in a student-teacher relationship. In our study these two scales showed moderately good internal consistency with coefficient values $\alpha = 0.91$ and $\alpha = 0.77$.

The results on individual subscales were calculated for each student by adding the values of all three items that form the scale. For the purpose of comparing student results on different subscales, we calculated the average values of each scale. Missing values in individual items were substituted by the average value of the other two items in the same scale, according to the instructions given by the authors (Furman and Buhrmester, 1985), based on the condition that at least two values were available. In case they were not available, the student's answers on that scale were not taken into account.

The Student's Motivational Goals

Students' achievement goals were measured by the Patterns of Adaptive Learning Scales questionnaire (Midgley et al., 2000; Slovenian translation and adaptation Puklek Levpušček & Zupančič, 2009). In the study we used the following three subscales: *i) mastery goal orientation* (e.g. "It's important that in this school year I gain a lot of knowledge in this subject"), *ii) performance-approach goal orientation* (e.g. "One of my goals is to show others how successful I am at schoolwork."), and *iii) performance-avoidance goal orientation* (e.g. One of my goals is to show my classmates that I am not doing poorly at school."). According to authors (Midgley et al., 2000) internal consistency coefficients for those three scales are good: $\alpha = 0.86$ for mastery goal orientation subscale, $\alpha = 0.86$ for performance-approach orientation subscale, and $\alpha = 0.75$ for performance-avoidant orientation subscale. The questionnaire consists of 14 items to which students answered on a five-point Likert-type scale (from 1 - very untrue of me, to 5 - very true of me). The first two subscales consist of five items and the last one consists of four. The results on individual subscales were calculated for each student by adding the values of all the items that form the scale. For the purpose of comparing student results on different subscales we calculated average values of each subscale.

Student's Academic Achievement

Student's general academic record at the end of the school year was used as a measure of his academic achievement (1-unsufficient, 2-sufficient 3-average, 4-good, 5-excellent).

Procedures

School headmasters were the first to be invited to the research, and based on their decision to participate they chose a research coordinator. Included in the letter were also consent forms for parents to sign and to confirm the students' voluntary participation in the research. The participation was anonymous; each student was assigned a code by the school. The questionnaires were filled in during class meetings under the supervision of the school psychologist who gave students directions for filling in the questionnaires. Students were given an hour to fill in the questionnaires. The content of the questionnaires and the research process were examined by the Ethics Commission at the Department of Psychology of the University of Ljubljana.

Results

In the results, we first list the descriptive parameters for subscales of the students' socio-emotional support and motivational goals in the whole sample. Then, based on the analysis of variance (ANOVA), we investigate the effects of gender, educational programme, and academic performance on students' perceived socio-emotional support of their class teacher and their achievement goals. Finally we test the predictive model of the effects of gender, educational programme, and perceived socio-emotional support on the students' achievement goals and academic performance by using a multiple regression method.

Table 1. Descriptive statistics for the perceived socio-emotional support, achievement goals, and academic achievement

	N	M	SD	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	SE	Statistic	SE
NRI subscales							
Conflict	569	1.64	.81	1.61	.10	2.47	.19
Instrumental aid	569	2.71	1.01	.31	.10	-.67	.19
Satisfaction	569	3.19	1.15	-.06	.10	-.99	.19
Intimate disclosure	569	1.65	.75	1.44	.10	2.05	.19
Nurturance	569	2.17	.96	.76	.10	-.03	.19
Affection	569	2.53	1.01	.34	.10	-.62	.19
Antagonism	569	2.00	.89	1.24	.10	1.55	.19
Reassurance of worth	569	2.74	.99	.23	.10	-.57	.19
Relative power	569	2.81	.99	.19	.10	-.55	.19
Reliable alliance	569	2.67	1.09	.41	.10	-.52	.19
NRI higher-order factors							
Socio-emotional support	569	2.49	.81	.33	.10	-.35	.19
Negative interactions	569	1.62	.81	1.75	.10	3.25	.19
Achievement goals							
Mastery goals	565	3.80	.79	-.23	.10	-.35	.20
Performance-approach goals	565	3.05	.95	.11	.10	-.36	.20
Performance-avoidance goals	565	3.43	.887	-.057	.100	-.403	.200

	N	M	SD	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	SE	Statistic	SE
Academic achievement							
Final academic success	569	3.27	.91	-.259	.102	.22	.20
Valid N (listwise)	565						

Table 1 shows that the students in general evaluated teacher's socio-emotional support as relatively low, while the presence of negative interactions in a relationship was, on average, evaluated even lower. They perceived higher reassurance of worth, class teacher instrumental aid, reliable alliance and their affection in a relationship than intimate disclosure. Regarding achievement goal orientation, the students assessed their mastery goals the highest, followed by performance-avoidance goals, while the performance-approach goals were the least present.

Perceived Socio-emotional Support of the Class Teacher

In the next step, we sought to discover differences in the perceived socio-emotional support and negative interactions of the class teacher (the two higher-order NRI factors) among the students from different educational programmes. We excluded students from the short-term vocational programmes due to its poor representativeness (n = 33; 5.5%). We examined the differences in perceived socio-emotional support and negative interactions of student's according to educational programme by one-way ANOVA. The results did not show any significant differences in the perception of socio-emotional support by the class teacher in relation to the student's educational programme: $F(3, 565) = 2.143$, $p = 0.094$, $MSE = 1.377$, partial $\eta^2 = 0.016$, $1-\beta = 0.546$, but showed significant differences in student's perceived negative interactions in relation to educational programme: $F(3, 565) = 6.617$, $p = 0.000$, $MSE = 4.251$, partial $\eta 2 = 0.034$, $1-\beta = 0.973$.

We have established similar results regarding differences in the perceived socio-emotional support in relation to gender, where girls on average state a somehow higher perceived socio-emotional support from their class teachers than boys (M =2.51, SD = 0.808 vs. M =2.45; SD =0.801), but the differences are nevertheless not statistically significant: $F(1, 567) = 0.932$, $p = 0.335$, $MSE = 0.603$, partial $\eta 2 = 0.002$, $1-\beta = 0.161$. However, the results point to statistically significant differences amongst boys and girls in perceived negative interactions with their class teacher: $F(1, 567) = 47.678$, $p = 0.000$, $MSE = 29.14$, partial $\eta 2 = 0.078$, $1-\beta = 1.00$

Further, we have also established statistically significant differences in the students' perceived negative interactions with regard to their level of academic performance: $F(4, 564) = 17.318$, $p = 0.000$, $MSE = 10.275$, partial $\eta 2 = 0.109$, $1-\beta = 1.000$. Again, we did not establish significant differences in perceived socio-emotional support in relation to academic performance: $F(4, 564) = 1.598$, $p = 0.173$, $MSE = 1.029$, partial $\eta 2 = 0.011$, $1-\beta = 0.494$

Students' Achievement Goals

Table 2. Descriptive statistics of the students' achievement goals according to the educational programme

	Mastery goal orientation		Performance-approach goal orientation		Performance-avoidance goal orientation	
	M	SD	M	SD	M	SD
Gymnasia general	3.83	0.75	2.87	0.91	3.33	0.89
Gymnasia specialist	3.52	0.82	2.81	0.86	3.23	0.86
Technical education programmes	3.82	0.76	3.02	0.95	3.42	0.89
Vocational programmes	3.81	0.84	3.35	0.90	3.60	0.83
Total	3.78	0.78	3.01	0.93	3.40	0.88

The results in Table 2 show that the students from all educational programmes perceive themselves as highly mastery-goal oriented. This is followed by performance-avoidance goal orientation, while their performance-approach goals were the least present.

The results of one-way ANOVA show statistically significant differences in students' mastery goal orientation according to the type of educational programme, albeit the differences are small: $F(3,56) = 3.19$, $p = 0.02$ $MSE = 1.93$, partial $\eta 2 = 0.02$, $1-\beta = 0.74$. From all four educational programmes included in the comparison, students from the gymnasia specialist perceive themselves as the least mastery-goal oriented ($M = 3.52$, $SD = 0.82$). The results also show statistically significant differences in the students' performance goal orientation: $F(3,52) = 6.53$, $p = 0.00$; $MSE = 5.53$, partial $\eta 2 = 0.03$, $1-\beta = 0.97$. The most prominent are differences between gymnasia and vocational educational programmes, where the students from the latter, on average, express higher performance goal orientation ($M = 3.02$; $SD = 0.95$ and $M = 3.35$; $SD = 0.90$ vs. $M = 2.81$; $SD = 0.86$ and $M = 2.87$; $SD = 0.91$). The results of one-way ANOVA also indicate statistically significant differences among educational programmes regarding the performance-approach goal orientation: $F(3,56) = 2.98$, $p = 0.03$; $MSE = 2.29$, partial $\eta 2 = 0.02$, $1\text{-}\beta = 0.704$. The highest perfor-

mance-avoidance goal orientation was expressed by the vocational secondary educational programmes' students, followed by the technical education programmes' students.

Table 3. Correlations among studied variables

	Academic achievement	Prog.	Gender	Socio-emotional support	Negative interact.	Mastery goal orientation	Performance-approach goal orientation	Performance-avoidance goal orientation
Academic achievement								
Programme	-.20***							
Gender	-.18***	.11**						
Socio-emotional support	.09*	.02	-.03					
Negative interactions	-.30***	.18***	.27***	-.19***				
Mastery goal orientation	.12**	.02	-.08**	.35***	-.13**			
Performance-approach goal orientation	.03	.16***	.14***	.26***	-.01	.53***		
Performance-avoidance goal orientation	.019	.102**	.03	.26***	-.06	.59***	.78***	

Note. *p < .05, **p < .01, ***p < .001.

Further, results of one-way ANOVA show that when looking at the gender differences in students' achievement goal orientation, there are statistically significant differences in performance-approach goal orientation (M = 2.86; SD = 0.94 for females vs. M = 3.13; SD = 0.91 for males): $F(1, 563) = 12.33$, $p = 0.00$; $MSE = 2.34$, partial $\eta 2 = 0.01$, $1-\beta = 0.49$ and mastery goal orientation: $F(1, 563) = 3.83$, $p = 0.05$; $MSE = 5.53$, partial $\eta 2 = 0.03$, $1-\beta = 0.97$. The results show no statistically significant differences between males and females in their reports of performance-avoidance goal orientation: $F(1, 563) = 0.38$, $p = 0.54$; $MSE = 0.29$, partial $\eta 2 = 0.00$, $1-\beta = 0.09$.

In the next step, we wanted to examine the effects of students' perceived socio-emotional support and negative interactions with their class teacher on their motivational goals and achievement. Gender and educational programme served as controls. The analysis of correlation between the considered variables (Table 3) shows that the socio-emotional support in comparison with the programme, gender, academic achievement and negative interactions correlates the highest with all three student's motivational goals, although the magnitude of correlations are relatively low. We can also notice the strongest positive correlation between socio-emotional support of the class teacher and the student's mastery goal orientation, while the student's gender and educational programme have significant positive and the highest correlation with students' performance-approach goals. The student's perceived negative interactions in relationship with their teacher are significantly correlated only to student's mastery goal orientation. The correlation is negative but low.

We further examined the effects of the type of educational programme, gender and socio-emotional support/negative interactions (higher-order factors) on the three achievement goals with the multiple regression analysis. The variables were included in the model with *Enter* method, in this order: educational programme, gender, and student's perceived socio-emotional support/negative interactions.

Table 4. Summary of multiple regression analyses for educational programme, gender, perceived socio-emotional support, and negative interactions predicting students' mastery goal orientation.

Predictor	R^2	B	95 % CI for B	β
Programme		.019	[-.040, .079]	.026
Gender		-.092	[-.218, .034]	-.059
Socio-emotional support		.332***	[.255, .409]	.341***
Negative interactions		-.053	[-.135, .028]	-.054
	.133***			

Note. *p < .05, **p < .01, ***p < .001.

The results (Table 4) indicate that we can explain 13.3% of variability in student's mastery goal orientation by this model. Student's perceived socio-emotional support of their class teacher has the strongest predictive power while educational programme, gender and negative interactions were not significant predictors.

The educational programme and the perceived socio-emotional support proved to be significant predictors of student's performance-approach goal orientation (Table 5), whereas negative interactions had no significant effect on this motivational orientation. Using the model, we explained 10.8% of variability in student's performance-approach goal orientation.

Table 5. Summary of multiple regression analyses for educational programme, gender, perceived socio-emotional support, and negative interactions predicting students' performance-approach goal orientation.

Predictor	R^2	B	95 % CI for B	β
Programme		.127**	[.055, .199]	.141**
Gender		.273***	[.120, .426]	.146***
Socio-emotional support		.294***	[.201, .387]	.253***
Negative interactions		-.026	[-.125, .073]	-.022
	.108***			

Note. *p < .05, **p < .01, ***p < .001.

Students' perceived socio-emotional support in relationship with their class teacher also proved to be the strongest predictor of student's performance-avoidance goal orientation followed by the educational programme, while gender and negative interactions were not important predictors. Using the model, we explained 8% of the variance in students' performance-avoidance goal orientation (Table 6).

Table 6. Summary of multiple regression analyses for educational programme, gender, perceived socio-emotional support, and negative interactions predicting students' performance- avoidance goal orientation.

Predictor	R^2	B	95 % CI for B	β
Programme		.085*	[.016, .154]	.100*
Gender		.061	[-.086, .208]	.035
Socio-emotional support		.281***	[.192, .370]	.256***
Negative interactions		-.043	[-.138, .052]	-.039
	.081***			

Note. *p < .05, **p < .01, ***p < .001.

Academic Performance

At the last step, we searched for independent contributions of perceived socio-emotional support of the class teacher and students' achievement goal orientation to the prediction of students' academic performance. With the *Enter* method, we included predictors to the model, in this order: educational programme, gender, student's perceived socio-emotional support/negative interactions, and students' motivational goals. In full, this model explained 13.5% of variability in student's academic achievement (Table 7). The strongest predictor of academic performance was negative interaction with the class teacher, while perceived socio-emotional support was not a significant predictor. Students who reported lower levels of perceived negative interactions in their relationship with the class teacher performed better academically than those students who reported higher levels of negative interactions. Educational programme and gender were also important independent predictors of student's academic achievement.

Table 7. Summary of multiple regression analyses for educational programme, gender, perceived socio-emotional support, negative interactions, and students' achievement goal orientation predicting students' academic performance.

Predictor	R^2	B	95 % CI for B	β
Programme		-.132***	[-.202, -.063]	-.152***
Gender		-.185**	[-.335, -.035]	-.102**
Socio-emotional support		.014	[-.081, .109]	.012
Negative interactions		-.270***	[-.365, -.176]	-.238***
Mastery goals		.112	[-.005, .229]	.097
Performance-approach goals		.107	[-.018, .232]	.111
Performance-avoidance goals		-.127	[-.262, .007]	-.124
	.135***			

Note. *p < .05, **p < .01, ***p < .001.
Code for female = 1, code for male = 2.

Discussion

The aim of this study was to examine the level of students' perceived socio-emotional support in their relationship with class teacher and their motivational (achievement) goals during the transition to the upper secondary education level. We also wanted to investigate the predictive power of students' perceived socio-emotional support/negative interactions with the class teacher in explaining their achievement goals and academic performance when controlling for the type of educational programme and gender.

Students' Perceived Socio-emotional Support and Motivational Orientation

The results show that students included in the sample on average perceived more instrumental aid, reassurance of their worth and reliable alliance in their relationship with teacher than intimate disclosure. These results are in accordance with the findings from other studies (e.g. Darling, Hamilton & Niego, 1994; Furman & Buhrmester, 1985; Lempers & Clark-Lempers, 1992) where the researchers similarly established that students seek more instrumental aid than emotional support from their teachers. This was confirmed also by PISA 2009 international study (OECD, 2010), where Slovenian 15-years old students stood out in relation to the low evaluation of their relationships with their teachers regarding their perception that their teachers are not interested in their well-being and they do not listen when they want to tell them something.

The first hypothesis was only partially supported by the results while students on average perceived themselves as mostly mastery goal oriented. This was followed by the performance-avoidance goal orientation, while the performance-approach goal orientation was on average stated as the least present by the students in their first year of upper secondary school.

Educational Programme, Students' Perceived Socio-emotional Support and Motivational Orientation

When comparing the differences in achievement goal orientation of students in different educational programmes, the ANOVA results confirmed the existence of statistically significant differences. Although these differences are relatively small, we have established that specialist gymnasia students state the least performance-approach goal orientation among all four educational programmes, while there are almost no differences between the students from general gymnasia and vocational educational programmes. We have noticed larger differences in mastery goal orientation and performance-avoidance goal orientation, where a higher percentage of professional and vocational educational programmes' students expressed such motivational goals.

We found no statistically significant differences among educational programmes in perceived socio-emotional support in the relationship with the class teacher. Since we anticipated statistically significant differences in both, the perceived socio-emotional support of the teacher and achievement orientation in relationship to educational programme (Wentzel, Battle, Russell & Looney, 2010), we can only partly confirm our second hypothesis.

Gender, Students' Perceived Socio-emotional Support and Motivational Orientation

The results showed significant differences in mastery goal and performance-approach goal orientation between males and females, with males reporting significantly higher levels of those types of motivational orientation than females. The differences between males and females proved not to be significant in performance-avoidance goal orientation.

We did not find significant gender differences in the perceived socio-emotional support of the class teacher. These findings are partly in contradiction with our third research hypotheses where we expected statistically significant differences in students' motivational orientation and the perceived socio-emotional support of the teacher in relationship to gender (Rueger et al., 2010; Wentzel et al., 2010). However, the results confirmed statistically significant differences in students' perceived negative interactions according to their gender.

Socio-emotional Support, Motivational Orientation and Academic Achievement

In the last step of our research, we examined the predictive power of perceived socio-emotional support of the class teacher when explaining students' achievement goal orientations and academic performance while controlling for educational programme and gender. The results confirmed our hypothesis that perceived socio-emotional support of the class teacher proves to be an important predictor of student's achievement goal orientation, mainly mastery goal orientation. In contrast to gender and educational programme, we can explain the highest percentage of explained variability in student's mastery goal orientation by perceived socio-emotional support of the class teacher. This is followed by the percentage of explained variability in performance-approach goal orientation, and finally performance-avoidance goal orientation. The result is in line with findings in previous studies (e.g., Midgley, Feldlauffer & Eccles, 1989; Roeser, Eccles & Sameroff, 1998; Ryan & Grolnick, 1986) which showed that students who perceived more support and positive orientation from their teachers, stated stronger intrinsic motivation for learning.

With our predictive model, we explained 13.5% of the variability in the first year upper secondary school students' academic performance, with the perceived negative interactions in relationship with the class teacher as the strongest (negative) predictor. The findings thus confirmed our last hypothesis and are in accordance with the findings in previous studies (e.g., Gregory & Weinstein, 2004; Owens, Shippe & Hensel, 2008; Wentzel et al., 2015), which have established important positive ef-

fects of the perceived quality of the relationship with teacher on student's academic performance.

Limitations, Strengths and Conclusions

This study contributed to a better understanding of the role that supporting relationship between a teacher and student plays in the transition to the upper secondary educational level. It confirmed the assumption that supportive teacher-student relationship characterized by affection, reassurance and intimate disclosure importantly contributes to successful students' adaptation to the new school environment. Albeit the study is cross-sectional and correlational in nature, and includes only student self-perceptions, we may nevertheless conclude that students' perceived quality of the relationship with teacher is an important predictor of their motivational orientation and academic performance. Since 15-year olds in the sample stated a relatively low perceived socio-emotional support from their class teachers, it would be worth to promote this aspect of the teacher-student relationship and in such a way strengthen student perception of acceptance and safety in a new school environment. Since different social contexts undoubtedly play a role in students' learning adjustment (Bronfenbrenner, 1979; Dubois, Felner, Brand, Adan & Evans, 1992; Eccles & Midgley, 1989; Wentzel, 1998), it would be advisable to study the effects of socio-emotional and academic support, and academic expectations in student's other microsystems such as family and peer social network.

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