

A MOTIVATIONAL MODEL OF RURAL STUDENTS' INTENTION TO PERSIST IN VERSUS DROP OUT OF SECONDARY SCHOOL IN SANANDAJ CITY (IRAN)

¹Yahya Yarahmadi, ²Hassan Asadzadeh, ²Hassan Ahadi, ³Shokoussadat Banijamali

¹PhD Student of Educational Psychology, Sciences & Researches Branch of Islamic Azad University, Tehran, Iran

²PhD, Allameh Tabataba'i University, Tehran, Iran

³PhD, Alzahra University, Tehran, Iran

Abstract

The main aim of the present research was to test a motivational model in order to explain the conditions in which rural students form their intentions to persist in, or drop out of secondary school. The model argues that motivational variables underlie students' intentions to drop out and that students' motivation can be either supported in the classroom by autonomy-supportive teachers or frustrated by controlling teachers. LISREL analyses of questionnaire data from 365 rural secondary school students showed that the degree of perceived value of schooling predicted students' self-determined motivation and perceived competence. The provision conditions of autonomy support within classrooms predicted perceived competence and students' intentions to persist, versus drop out directly.

Keywords: *Perceived value of schooling; Perceived teacher autonomy support; Self-determined motivation; Perceived competence; School performance, Intentions to persist versus drop out.*

1. Introduction

Drop out of high school is a significant problem that every year more students confront with it. The most recent data places the current national high school dropout rate at just over 12%, though dropout rates for rural high school students are about 20% and as high as 40% in the most remote schools. Drop out of school is not only an educational problem, but also is a social justifiable condition. Moreover, this could be resulted in psychological and economic problems. For example, drop out of school lead to losing self-esteem, consuming narcotics drugs and becoming a person as a burden on society (Mensch&Kandel, 1988; Tidwell, 1988). External resources provide students with academic and social opportunities that contribute positively to their achievement and school retention, such as school–business partnerships, field trips, and secondary and higher education collaborations (Colangelo et al., 1999).

When schools face severe limitations in external resources (e.g., Socioeconomic constraints), as is common with geographically remote rural schools, they must rely on other kinds of resources to support the goals of achievement and persistence. Although some rural students have at-home resources to support positive academic outcomes, many face at-home and community resource deficits associated with low achievement and dropout risk (e.g., low socioeconomic status, single-parent families, low parental education, low parental and community valuing of education; Fowler & Walberg, 1991; Haller & Virkler, 1993; Murray & Keller, 1991).

Looking at the conducted studies concerning drop out of high school indicates that motivation factor is involved in deciding to drop out (Bean, 1985; Rumberger, 1987; Tidwell, 1988; Tinto, 1975). Most studies have shown that motivation could be resulted in important outputs. Some of these outputs are trying to experience positive emotions in the classroom, psychological adjustment at the school, concentration, satisfaction with educational life, school performance and tendency towards schooling (Vallerand Fortier&Guay, 1995; Gottfried, 1985, 1990; Grolnick&Ryan, 1987; Harter&Connell, 1984; Ryan &Connell, 1989; Vallerand & Bissonnette, 1992; Vallerand et al., 1993).

Moreover, most of the experimental studies shown that when people motivated to do a task externally, in comparison with those who motivated internally, show less durability (Deci & Ryan, 1985). This state is specifically most probable when participation in the next task is not obligatory. There is a considerable similarity among these findings and drop out of school. However, some of the students drop out of high school at age of 14 and 15, but it seems that most of the students continue their school due to mandatory or family situation (up to 16 year of age). In this period, they identify their purpose of continue of drop out of school. Those students are interested in specific fields or have tendency towards area that needs to a university degree, they determined to keep studying. Furthermore, self-determined motivation for a considerable part of the students was declined (namely, the low level of internal motivation and identified regularity and high level of motivation and external regularity was formed), this possibility resulted in drop out of school.

The critical point is the time that compulsory keeping school is terminated, that is, when students age are sixteen year and must be decide to continue or drop out of school. It is clear that students act according to their decision. Those students that decided to continue their schooling, they continue and those who decided to drop out of school, they drop out (Hadre & Reeve, 2003). The investigation in insight literature indicates that there is a significant predictable purpose for their behavior (Ajzen&Fishbein, 1980).

This motivational model is not only correct theoretically, but also is similar with drop out literature. First, with respect to the social context of students that drops out of school than who continue to their schooling, reporting that had less participation in decision making process in school, told them frequently modify them and often punished (Dohn, 1992). Moreover, there were been less positive relationship with teachers and controlled by their teachers (Bearden, Spencer & Moracco, 1989; Dohn, 1992).

Secondly, concerning the perception of students of competence and self- autonomy, it is observed that those who drop out of school have low educational competence (Horowitz, 1992) and self-autonomy (Dohn, 1992) in comparison to those who continue their schooling. Finally, in relation to motivation, dropped out of school student have a low level of interest and attitude and high level of alienation and fatigue towards school (Bearden et al.,1989 ;Calabrese & Poe,1990; Horowitz, 1992). This finding supports the hypothesis that dropped out of school students may be internalized non-determined motivation orientation.

Although teachers do not control students' out-of-school circumstances, they can nevertheless provide classroom contexts that foster situational engagement, nurture interest, and promote the development of internal motivational resources (Deci, 1995; Hidi& Harackiewicz, 2000; Reeve, 1996; Sansone & Morgan, 1992). When teachers support their students' interests (rather than control their behavior), students are more likely to find value in their schooling and are less likely to formulate dropout intentions (Steinberg, Elmen, & MOUNTS, 1989; Vallerand & Bissonnette, 1992; Vallerand, Fortier, & Guay, 1997). Once nurtured and developed in the classroom, motivation can therefore function as a student-owned internal resource that contributes significantly to the decision to persist in school. One promising theory to understand the motivational influences underlying students' intentions to continue versus dropout of school is self-determination theory (Deci & Ryan, 1985; Deci, Vallerand, Pelletier, & Ryan, 1991; Ryan & Deci, 2000; Vallerand et al., 1997).

Self-determination theory, when applied to education, is about fostering in students an interest in learning, a valuing of education, and a confidence in personal capabilities (Deci et al., 1991). According to this theory, students become actively engaged in educational activities to the extent that classroom endeavors affirm their competencies and prove themselves to be interesting and relevant to students' lives. The basic needs of competence and self-determination explain the motivational source underlying students' experiences of becoming interested in school and internalizing school-related values. As needs, both competence and self- determination represent energizing states that, if nurtured, facilitate interest enjoyment, engagement, and well-being (Ryan & Deci, 2000). Competence represents the need for seeking out optimal challenges and for perceiving oneself as efficacious in mastering those challenges; self-determination represents the need to experience choice in the initiation and regulation of one's behavior such that the student's

choices rather than environmental events determine his or her actions (Deci & Ryan, 1985; Ryan & Deci, 2000). Thus, to promote an interest in learning, a valuing of education, and an affirmation of personal capabilities, educational climates need to find ways to support students' needs for competence and self-determination.

Environments that support students' needs for competence and self-determination constitute autonomy-supportive environments, whereas those that neglect and frustrate these needs constitute controlling environments (Deci & Ryan, 1987; Reeve, Bolt & Cai, 1999). When students have autonomy supportive teachers (Deci, Schwartz, Scheinman, & Ryan, 1981; Deci, Spiegel, Ryan, Koestner, & Kauffman, 1982) or when students perceive their teachers to be relatively autonomy supportive (Grolnick & Ryan, 1987; Rigby, Deci, Patrick, & Ryan, 1992), students report relatively high levels of self-determination (Deci & Ryan, 1985; Vallerand et al., 1997), competence (Deci, Nezlek, & Sheinman, 1981; Ryan & Grolnick, 1986), and valuing of school (Ryan & Connell, 1989). These motivational resources, when supported and nurtured in the classroom, provide students with the motivational foundation they need to become highly engaged in school and committed to graduating (Vallerand et al., 1997).

The purpose of this study is proposing and testing a motivational model for decision making of students to drop out of school or continue high school on the basis of self-determined motivation theory (Deci and Ryan, 1985). This study could be effective to integrate current knowledge concerning motivational determinants of students' decision making to drop out or continue schooling and better understanding of this process on the basis of self-determination theory. Moreover, this theory offered us a significant understanding of psychological processes involved in dropping out of high school and although, tested the self-determinant theory that to be considered a basis for motivational model of dropping out of high school. The proposed motivational model for predicting decision making of students to drop out or continue high school is shown below at the figure 1.

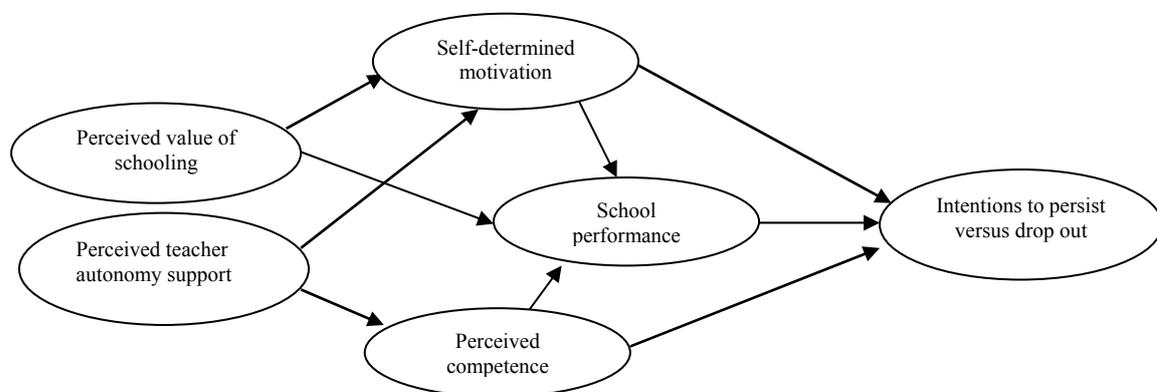


Figure 1. the proposed model of relationship among perceived value of schooling, perceived teacher autonomy support, self-determined motivation, perceived competence, school performance and intentions to persist versus drop out.

This model is composed of six latent constructs - Perceived value of schooling, Perceived teacher autonomy support, Self-determined motivation, Perceived competence, School performance and Intentions to persist versus drop out. In this model, the extent to which student' perceptions that class conditions supporting self-autonomy, and they have motivational resources observed by perceived competence and personal determinant are predicted. The perception of the students of schooling value through self-determined motivation indirectly and school performance decide to drop out or continue their schooling is predictable. This motivational model is similar to the model that is offered by Hadre and Reeve (2003). Both models are motivational mediate models because

on the basis of them, (a) perceived teacher autonomy support would predict intentions to drop out indirectly, through its effects on students' self-determined motivation and perceived competence, (b) self-determined motivation and perceived competence would directly predict intentions to drop out, (c) self-determined motivation and perceived competence would directly predict school performance, and (d) even though school performance would predict intentions to drop out, What is different in these two model is that in this proposed model the school perceived value in decision making of students for dropping out of school in investigated.

By adding school perceived value in this model , we indirectly used of the self-determined motivation and school performance of the studies of (Wigfield and Eccles,1992,2000) that indicates school perceived value is a motivational process and has relationship with self-determined value and continue to schooling . Although Meece, Wigfield and Eccels(1990) shown that mathematics perceived value is a strength predictor for decision making of students (and their real behavior) to take a mathematics subject in the future. As can be shown in figure 1, it is proposed that (a) the perception of the teacher support of the self-determination indirectly through influence on the self-determined motivation and perceived competence of students, decision to drop out of school could be indentified (b) self-determined motivation and perceived competence directly predict decision making for drop out of school,(c) self-determined motivation and perceived competence predict school performance directly, (d) through school performance foresee decision making for dropping out of school, and (e) school –perceived value through influence on the self-determined motivation and school performance predict decision making for dropping out of school.

Rural and small schools that confront with economy and social problems need to achieve to maximize the rate of those how finish the course by secure and accessible methods. External possibilities and supportive systems could help the schools. Such schools could tend to internal resources of students that are controllable, that is, achievement and motivation. Conducted interventions about dropping out of school with concentration of the achievement compensation were effective. In this study, we want to propose the second choice, that is, the strategy of motivational interventions in providing learning conditions that supports self-autonomy of the students in order to increase the rate of graduate high school students.

2. Research methods

This study is structural functional modeling that its purpose investigating the relationship of internal and external hidden constructs in this model and finally providing motivational model in order to predict decision making of students to persist or drop out.

3. Subjects

The population of this study is all students of third grade in secondary school and high school in Sanandaj City. Due to the formulation of a structural functional modeling, a large sample was selected. Thus, 365 students were selected by categorical sampling. We tried to choice the rate of participants to be the same and of all school grades in relation to the numbers of them to be selected.

4. Measures

The questionnaire assessed the variables needed to reflect five latent constructs— perceived value of schooling, perceived teacher autonomy support, self-determined motivation, perceived competence, school performance, and intention to persist versus drop out. Each questionnaire item used a 7-point response scale, ranging from 1 (*not at all true*) to 7 (*extremely true*).

4.1. Perceived teacher autonomy support. We assessed perceived teacher autonomy support with a modified version of the Learning Climate Questionnaire (LCQ; Williams & Deci, 1996). The LCQ asks students to think about the teachers they have taken classes from in their school, with the following eight questions: “ My teachers provide me with choices and options,”“ My teachers convey their confidence in my ability to become what I want to become,”“ My teachers try to understand how I see things before they suggest to me how they would handle a particular

situation,” “ When I offer suggestions to my teachers, they listen carefully and consider my suggestions seriously,” “ My teachers show me respect,” “ My teachers encourage me to ask questions,” “ I am able to share my feelings with my teachers about what I want to become,” and “ I feel understood by my teachers.” The scale’s internal consistency in the present investigation ($\alpha = .92$) was similar to that found in other investigations (Black & Deci, 2000).

4.2. Perceived value of schooling. In order to assessing the school perceived value, we used of three-item scale of Deci and Colleagues, 1991). These items are “most of the things I learn in a school have a value”, “I valued activities and related work to the school”, and “it is completely clear that what I learn in school, how much are valuable and applicable for my future”. Deci(1991) reported the reliability of this scale 0.80 ($\alpha = .80$). The calculated coefficient alpha for this scale in this study is 0.82($\alpha = .82$).

4.3. Self-determined motivation. We assessed self-determined academic motivation with the Academic Self-Regulation Questionnaire (ASRQ; Ryan & Connell, 1989), (Fortier et al., 1995). The ASRQ has been widely used in educational settings. The scale of self –determined motivation consists of one item and 10 reason that every reason has seven point scale starts from 1 (completely disagree) to 7 (completely agree). Ryan and Connell (1989) reported the reliability of this scale 0.82 ($\alpha = .82$). In this study, for this scale the reliability was 0.78($\alpha = .78$).

4.4. Perceived competence .In order to assessing, we used of the perceived competency of the Harter (1982). This scale composed of 4 items that assess the feeling of the subject about their competences in learning activities. Wiliams and Deci (1998) reported the reliability of this scale 0.80($\alpha = .80$).In this study, for this scale the reliability was 0.83($\alpha = .83$).

4.5. School performance. We assessed school performance with two indicators. The first was self-reported grade point average (GPA). A single item asked students to “estimate your grade point average,” using a 0.0 to 4.0 scale. The second indicator was a scale to assess anticipated academic performance Which used the following three items: “ In terms of academic performance, I expect to do well,” “ In terms of academic performance, I expect to do better than most of my classmates,” and “ My expectancies for career success are very, very high.” Hadre and Reeve (2003) reported the reliability of this scale 0.79($\alpha = .79$).

4.6. Intentions to persist versus drop out. We assessed intentions to persist in, versus drop out of, school by beginning with the same two items used by Vallerand et al. (1997), which were “ I sometimes consider dropping out of school” and “ I intend to drop out of school.” And we used the item that is added to the previous items by Hadre and Reeve (2003), “sometime I am in doubt that in the next coming years would persist to my schooling”. Hadre and Reeve (2003) reported the reliability of this scale 0.79($\alpha = .79$).

5. Data Analysis

We tested the hypothesized motivational model using structural equation modeling (using LISREL 8.25). Although in order to investigating fitness of presumed model with observed data and comparison to the substitute model, we relied on two chi-square statistics.

As you can see in the table, the model have two internal variables (school perceived value and perception of teacher support of self-autonomous and the four external variables (self-determined motivation, perceived competence, school performance and persist to versus drop out. The mean, standard deviation, matrix of correlation is calculated for the six variables.

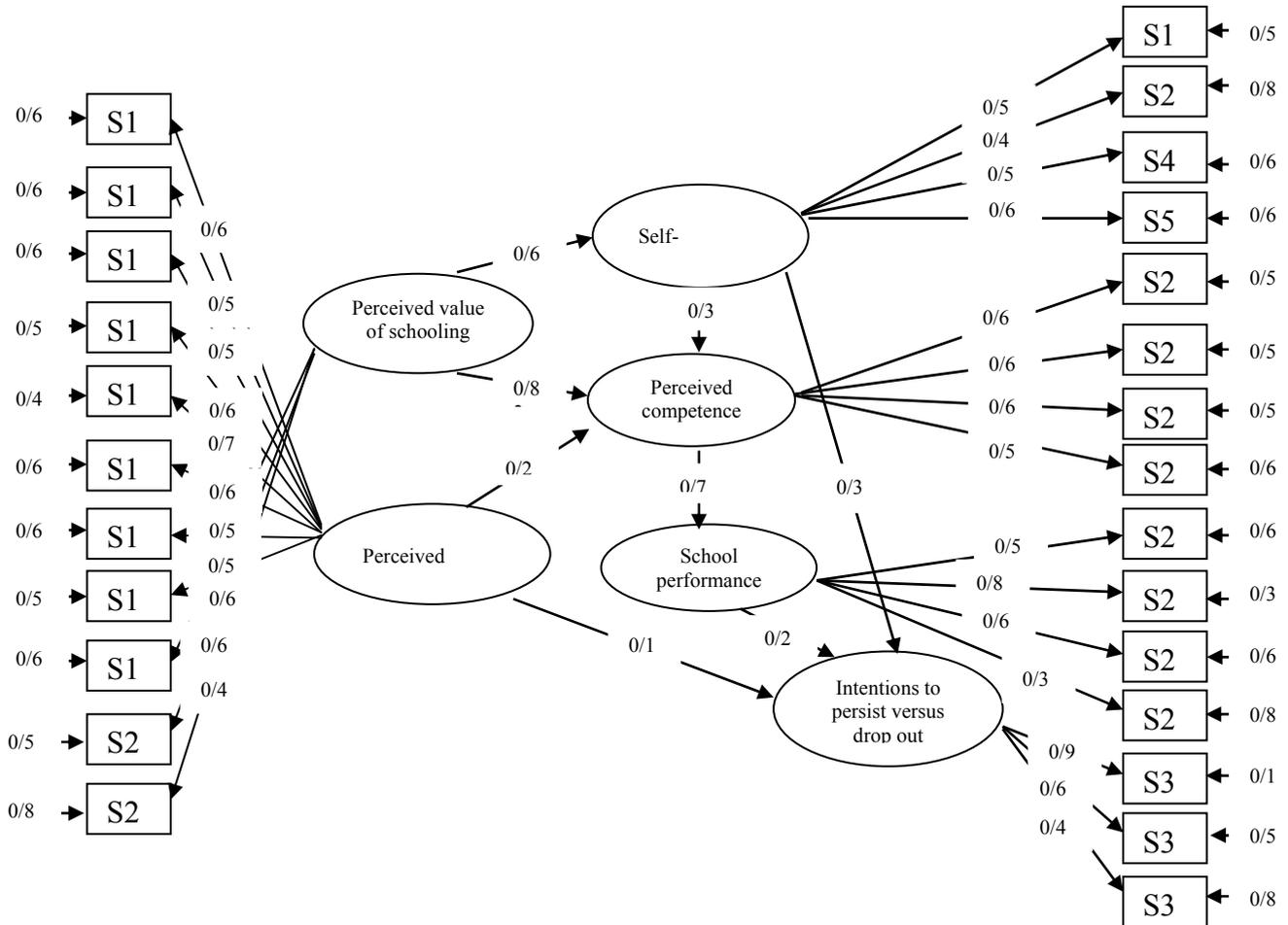


Figure 2. Estimated coefficient of standard indicators and constructs of the model.

In order to evaluating the presumed model to which extent is fitted with the acquired data, in addition to chi-square and the critical size of the sample, we also rely on the three fitness indices (Bollen and Long, 1993). The non-significant chi-square indicates fitting model with the data. When the sample size is large, the other indices indicating fitness of the model (Hadre and Reeve, 2003). Thus, the chi-square index equal or less than 2 suggesting adequate fitness and the sample size should be more than 200 subjects. The other important indices are including Root Mean Square Error of Approximation (RMSEA) Goodness of Fit Index (GFI), Adjusted Goodness of Fit Index (AGFI) Normed Fit Index (NFI), Non-Normed Fit Index (NNFI), Standardized Root Mean Square Residual (SRMR), and Comparative Fit Index (CFI).

The higher the GFI and CFI (higher than /90), the better and compare the lack of the presumed fitness model with independent model, while whatever the SRMR is lower (lower than /50, the acquired model show the better fitness (Hu and Bentler, 1999). In sum, for assessing the fitness of

model, researchers are using 6 indices that are including: Chi2, the ratio of χ^2/df , sample size, GFI, CFI, and SRMR.

6. Structural Model

6.1. Results

According to the presumed motivational model (10 diagram) the rate of school perceived value predicting the personal determined motivation level and school performance and perceived teacher autonomy support predicting self-determined motivation and perceived competence, as a result, these variables predict decision making of the students to persist versus drop out. The data indicated that proposed model was not confirmed in some presumed paths, but among the model variables in a new path establishing a relationship (diagram2).

As two independents variables, namely, school perceived value and perceived teacher autonomy support indirectly predict self-determined motivation, perceived competency and school performance variables and even perceived teacher autonomy support variable in the proposed model directly predict decision making to persist versus drop out. The analysis of the data shows the fitness of the model. The results of the fitness indices analysis is show in the table 3. As can we seen, Chi2 index is statistically significant ($p < 0/01$, $\chi^2 = 534$) and the achieved number is too big that anticipated number in such a sample. The χ^2/df index was 1.84 and adequate range. The other indices indicating fitness of the proposed model. The path analysis (table2) shows that between the model paths, there is a statistically positive and significant relationship ($t > 2$). Also, the relationship between the model variables in the table 1 is shown in a correlation matrix way.

7. Discussion and Conclusion

One of the important internal motivations is the belief that the student has towards the merit of the school and lesson contents. If the student make believe that lesson contents and school subjects is related to the daily problems and to feel this perception objectively and concretely, in relation to the time that there is no relationship between school subjects at the school and daily problems do not feel, the student has a high level of internal motivation in order to involving in the school activities and consequently tendency towards persist schooling is higher.

One important role teachers play in helping students develop these internal motivational resources is through the provision of autonomy supportive classrooms, which we define as those that support and nurture students 'Like those before us (Vallerand et al., 1997), we found that when students perceived that these needs are being neglected or frustrated, then they become vulnerable to begin formulating dropout intentions. Our essential finding was that an autonomy supportive climate, as perceived by students, nurtured critical motivational variables (i.e., self-determined motivation, perceived competence) that predicted students' intentions to persist in high school, and they did so in a way that was above and beyond the effect perceived school performance had on intention to persist. Poor achievement is an especially strong predictor of dropout intentions (e.g., Battin-Pearson et al., 2000). We agree strongly that poor achievement forecasts and helps shape students' intentions to drop out of school. We further agree that focusing dropout prevention efforts on improving students' academic success is a promising strategy, especially when prevention strategies focus on the academic achievement of children at earlier ages.

What is important about our findings, however, is that a unique and substantial portion of dropout intentions also arise from the two important motivational resources of self-determined motivation and perceived competence. Hence, much can be gained in both theory and practice by thinking about dropout as not only an achievement issue but also as a motivation issue. In order to confirm this topic, in this study, we added to the model that is not identified its role at the model of Hadre and Reeve (2003). Also, we reviewed its relationship with other variables. School perceived value along with self-determined motivation in research of Wigfield and Eccles (1992, 2000) by deciding to drop out showed positive relationship and we brought these variables in our study. In this study, between this variable and the other mediating motivational variables, perceived

competence and self-determined motivation, there was a statistically significant relationship and influential on the school and persist to versus drop out. Meece, Vigfield and excel (1990) found that perceived value of mathematics predicting success and failure of the students in this subject in the coming academic terms. Our study is consistent with those findings. Also, in the confirmed model of this study mediating variable, perceived competency shown its relationship to the independent variables, school perceived value and perceived teacher autonomy support. As we can conclude that perceived competency has a mediating role of motivational variables on the school performance and finally deciding to persist versus drop out of school and this important finding is consistent to the studies of Bandura (1994), Bandura and Schunk (1981) and Viegfield (1994) that shown self-efficacy expectations and outcome has a big role as much as the perceived competence. In order to confirm this topic, in this study, we added to the model that is not identified its role at the model of Hadre and Reeve (2003).

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Our investigation specifically focused on rural students. It is interesting to compare our findings on the beneficial effects of teachers' autonomy support on students' motivation across urban and rural samples. Also, we propose that the influence rate of the motivational variables in this study to be compared in two big sample of rural and urban. Because of the current literature, it seems that the influence of perceived teacher autonomy support on the school performance and deciding to persist versus drop out is strength that in rural students in relation to the urban students and the motivation of the rural students influenced more relatively than urban students of the teacher motivational styles.

We acknowledge three limitations that pertain to our measures and three more limitations that pertain to the generalize ability of our findings. In terms of measurement-related limitations, the first is that we assessed students' holistic perception of all their teachers, because our goal was to investigate students' intentions to drop out of school (rather than to drop out of a particular subject area). We nonetheless acknowledge that students will perceive varying levels of autonomy support from different teachers and in different subject areas (e.g., English, science), as teachers' motivating styles vary considerably even within the same school. The second measurement-related limitation is that we did not assess socioeconomic status as an individual difference characteristic. The third measurement-related limitation involved our outcome measure self-reported intention to persist in school. That is, we did not assess students' actual dropout behaviors. We intentionally selected this particular outcome measure, however, because we wanted to investigate students' decision-making process as they formulate intentions to continue versus drop out. Three aspects of our research limit the generalize ability of our findings.

The first was our reliance on a common method (self-reported questionnaire data) to assess each variable. Past studies show that our self-report measures do predict their behavioral manifestations (school performance, Battin-Pearson et al., 2000; dropout, Vallerand et al., 1997), but our reliance on a common method might overestimate the magnitude of the effects we found among the latent constructs. A second factor that might artificially increase these estimated effects is time. That is,

we collected our data using a cross-sectional, rather than a longitudinal, research design. Experiences like having one's autonomy supported and formulating an intention to drop out of school occur over time and in such a way that a longitudinal research design could estimate the effects in our model more precisely. The third generalizable ability-related limitation is that we studied students' perceptions of only their teachers. In addition, students' perceptions of the school climate as autonomy supportive versus controlling are influenced by their relationships with their parents (Grolnick & Ryan, 1989) and school administrators (Vallerand et al., 1997). Our findings have practical implications. When teachers provide their students with autonomy-supportive environments, they provide a classroom climate capable of nurturing motivation directly and nurturing achievement and persistence indirectly.

In summary, by looking at the table 2 and the separate influence of every variable on the school performance and deciding to persist versus drop out, we imply that (a) motivational resources predict significantly performance and persistence, (b) school performance has deep rooting in the perceived competence in relation to the other motivation resources and (c) deciding to persist versus drop out is influenced by self-determined motivation.

Small, rural schools need valid and achievable ways of compensating for the constraints they face as they strive to graduate 90% of their students. External opportunities and support systems are important allies to improve high school completion rates. Lacking access to these external resources, rural schools can turn to the more controllable inner resources of their students, namely, achievement and motivation. Dropout interventions that focus on the goal of reversing poor achievement have been shown to be effective. Our study goes one step further in suggesting a second ally to improving high school graduation rates in that we were able to highlight the potential effectiveness the motivational intervention strategy of providing students with a learning climate that support students' autonomy. In practice, doing so means providing classroom climates in which teachers offer their students choices and options, respect students' agendas, acknowledge their feelings and questions, and offer learning activities relevant to Students' goals and aspirations:

Table1. Matrix of correlation, mean and standard deviation indicators of model

variables	1	2	3	4	5	6
1 Perceived value of schooling	1	0/476**	0/434**	0/559**	0/373**	0/165**
2 Perceived teacher autonomy support		1	0/367**	0/380**	0/230**	0/141**
3 self-determined motivation			1	0/513**	0/366**	0/380**
4 perceived competence				1	0/553**	0/266**
5 school performance					1	0/223**
6 Intentions to persist versus drop out						1
mean	18/51	39/89	57/45	22/95	18/49	15/24
standard deviation	2/66	9/68	7/39	4/05	3/78	4/80

**P< 0/01, N=365

Table 2. Model path

index	standardized coefficient	non-standardized coefficient	Quantity of T	(p)	Significant
Φ_{11}	0/72	0/59	6/59		0/05
Υ_{11}	0/67	0/67	6/36		0/05
Υ_{21}	0/82	0/95	4/09		0/05
Υ_{22}	0/25	0/19	2/00		0/05
Υ_{42}	0/15	0/26	2/06		0/05
β_{21}	0/30	0/35	2/69		0/05
β_{32}	0/77	0/45	7/85		0/05

Table 3. Goodness of fitness Indices of the model

<i>P</i>	Comparative Fit Index (CFI)	Standardized Root Mean Square Residual (SRMR)	Non-Normed Fit Index (NNFI)	Normed Fit Index (NFI)	Adjusted Goodness of Fit Index (AGFI)	Goodness of Fit Index (GFI)	Root Mean Square Error of Approximation (RMSEA)	χ^2/df	χ^2	index
0/001	0/96	0/05	0/96	0/92	0/88	0/90	0/048	1/84	534/65	

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