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Predicting Emotional-Social Competence Based on Academic Engagement, Self-efficacy and Perception of School Climate in High School Students

Ali Moradi[1]* Morteza Chemelnezhad[2]

1. Farhangian University of Hormozgan, Bandar Abbas, Iran
2. Education Office, District 2, Bandar Abbas, Iran

* Corresponding author's Email: k.moradi93@gmail.com

ABSTRACT: The aim of this study was to predict emotional-social competence based on academic conflict, self-efficacy and perception of school climate in high school students in Minab. The research method was correlational, and regression was used to test the research hypotheses. The statistical population consisted of the second-high school students of Minab city from whom 380 people (200 male students and 180 female students) were selected as the study sample by stratified random sampling method. Four questionnaires including Social Emotional Competence, Academic Conflict, Academic Self-efficacy and Perception of School Atmosphere were used to collect data. The results showed that the predictor variables explained about 39% of the variance of the criterion variable. According to the findings, academic engagement ($\beta = 0.224$, $P = 0.001$) significantly predicted socio-emotional competence, which means that as students' academic engagement increases, their socio-emotional competence increases. Also, academic self-efficacy ($\beta = 0.436$, $P = 0.001$) positively and significantly predicted emotional-social competence, which means that with increasing students' academic self-efficacy, their socio-emotional competence also increases. Likewise, perception of school climate ($\beta = 0.193$, $P = 0.001$) positively and significantly predicted emotional-social competence, which means that with increasing perception of school atmosphere, students' emotional-social competence increases. According to the results, academic self-efficacy with a standardized coefficient ($\beta = 0.436$) compared to other predictor variables was a stronger predictor of students' emotional-social competence. In general, the research findings support the role of motivational and cognitive variables in students' emotional-social competencies.

Keywords: Emotional-social competence, Academic engagement, Self-efficacy, Perception of school climate, High school students.

Introduction

Emotional-social learning is the process by which children and adolescents acquire the knowledge and skills needed to work in different communities. Emotional-social competence consists of a set of skills including recognizing and managing emotion, caring for others, building positive relationships, making responsible decisions, and dealing constructively and ethically with challenges. It consists of the following components: self-awareness, social awareness, interpersonal relationships, a responsible decision making and self-managing (Domitrovich, Durlak, Staley, & Weissberg, 2017). Research shows that students with emotional-social competence perform better in school, are more likely to finish school and graduate, even at higher levels, and perform better in adulthood than students who show no emotional-social competence (Imamgholivand, Kadivar, & Sharifi, 2019). Emotional-social behaviors build the root of adaptive social interactions. They include knowledge and respect for social norms, listening to and accepting the opinions of others, controlling negative emotions and showing positive behaviors in social situations such as resolving conflicts or presenting a positive image to friends and

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peers (Taylor, Oberle, Durlak, & Weissberg, 2017). Previous studies have shown that several motivational and cognitive variables are involved in predicting this educational structure. For example, Chen et al. (2004) showed that socio-emotional behaviors were related to school performance in different cultures.

One of the motivational variables that can be an important determinant of social emotional competence is academic involvement. Academic engagement is engagement with learning and schoolwork (Perkmann, Salandra, Tartari, McKelvey, & Hughes, 2021). According to Martínez, Youssef-Morgan, Chambel, and Marques-Pinto (2019), students' involvement in an academic activity indicates that, firstly, the task has attracted the student's attention and, secondly, the student has the energy to do it. It keeps task excitement and energy until the end of the task. Students without academic engagement are reluctant to participate in classroom and group work activities and enjoy the classroom environment. They have low success in learning (Carmona-Halty, Salanova, Llorens, & Schaufeli, 2021). Students with low academic engagement do not feel a sense of belonging to the learning environment, and frequent absences and dropping out of school are observed among them (Scotta, Cortez, & Miranda, 2021). Academic engagement consists of the following components: Behavioral, Cognitive, Emotional and Agency (Alrashidi, Phan, & Ngu, 2016). Numerous studies have pointed to the positive role of academic engagement in learners' social emotional competence (Martín et al., 2021; Vestad, Bru, Virtanen, & Stallard, 2021; Y. Wang et al., 2019).

Social emotional competencies also depend on students' self-efficacy beliefs. Academic self-efficacy is defined as an individual's perception of his or her ability to perform the tasks necessary to achieve academic goals. Learners with higher academic self-efficacy have better academic adjustment and use more effective learning strategies (Zander, Brouwer, Jansen, Crayen, & Hannover, 2018). According to social cognitive theory, academic self-efficacy refers to students' confidence in their personal ability to engage in the behaviors needed to achieve a desirable academic outcome (Maddux & Gosselin, 2012). Research has shown that students with high academic self-efficacy also have good social and emotional competencies. For example, Hamed (2012) has shown that there is a relationship between self-efficacy beliefs and social emotional competencies of girls at risk.

Perception of the school climate is a motivational construct that has been studied in the areas of motivation and emotion. The school climate is a complex multidimensional structure that encompasses a school's climate, culture, values, resources, and social networks that shape interactions between students, teachers, and administrators (Gage, Larson, Sugai, & Chafouleas, 2016). Numerous studies have pointed to the relationship between students' perceptions of the school climate and their social and emotional competencies. For example, Jia et al. (2009), in an intercultural study on Chinese students found that they perceived higher levels of teacher support, student-student support, and opportunities for classroom independence than students in the United States. In addition, students 'perceptions of teacher support and student-student support were positively related to adolescents' self-esteem and grade point average, but negatively correlated with depressive symptoms for Chinese and American adolescents. In another study, Loukas and Murphy (2007) examined the role of high school students'

perceptions of the school climate as a protective function in subsequent adjustment problems. The results of this study showed that positive perception of school climate was inversely related to adjustment problems.

According to the results of previous studies on the determinants of social emotional competencies and the role of these competencies in mental health and academic performance of learners (Domitrovich et al., 2017; Panayiotou, Humphrey, & Wigelsworth, 2019), in the present study, we investigated the role of motivational and cognitive variables of academic engagement, self-efficacy and perception of school climate in high school students.

Material and Methods

The present study was a descriptive correlational study. In this study, the role of academic engagement, self-efficacy and perception of school climate as predictor variables in high school students' emotional and social competence was examined as a criterion variable. The statistical population of the study included all high school students in Minab city, Iran in the academic year 2020. According to Morgan table, 380 people (200 male students and 180 female students) were selected as a sample by random stratified sampling. Due to the Covid 19 epidemic, data were collected online. Before collecting data, participants completed an informed consent form. Four questionnaires were used to collect data. The Zhou and Ee (2012) questionnaire was used to assess social emotional competence. This questionnaire has 25 questions and is designed on a 5-point Likert scale. The score range of this questionnaire is between 25 and 150. The higher the score, the higher the level of socio-emotional competence. Imamgholivand et al. (2019) using exploratory factor analysis, confirmed five factors (self-awareness, social awareness, self-management, relationship management and responsible decision making) plus a general factor of emotional-social competence of this questionnaire. Also, these researchers used Cronbach's alpha coefficient to evaluate the reliability of the questionnaire. Cronbach's alpha coefficients were obtained for subscales between 0.77 to 0.80. In the present study, the reliability of the questionnaire was calculated to be 0.84.

Academic engagement was measured using the Reeve and Tseng (2011) questionnaire. This questionnaire has 22 questions and the respondent should read each item and then rate their current status on a five-point Likert scale from one (meaning never or almost never) to 5 (meaning always or almost always). The sum of the scores of all the items shows the total score of the academic engagement, which can vary between 22 and 110. In a study by Reeve and Tseng (2011), the validity of this questionnaire was investigated by exploratory factor analysis and its four-factor structure was confirmed. Its reliability was also reported to be 0.82. The reliability of the questionnaire in the present study was calculated to be 0.80.

To measure academic self-efficacy beliefs, the Educational Self-efficacy subscale of the Manual for the Patterns of Adaptive Learning Scales (PALS), (Midgley et al., 2000), was used. This battery of scales has 26 subscales from which, in the present study, the subscale of students' academic self-efficacy has

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been used. This subscale has 5 items that reflect students' perceptions of their competence in doing homework and is graded from completely incorrect (1) to completely correct (5) based on a five-point Likert scale. The minimum and maximum scores in this subscale are 5 and 25, respectively. A higher score on this subscale indicates higher academic self-efficacy. Midgley et al. (2000) confirmed the factor structure of the questionnaire of adaptive learning patterns and reported the reliability of the subscale of academic efficiency as 0.78. In the present study, the reliability of this scale was 0.75 by Cronbach's alpha method. The School Climate and School Identification Measurement Scale (Lee et al., 2017), with 38 items, was used to measure students' perceptions of the school climate. The range of scores of this questionnaire varies between 38 and 190. A higher score indicates a more positive perception of the school environment. The validity of this questionnaire was evaluated using confirmatory factor analysis and its factor structure was confirmed. Additionally, Cronbach's alpha coefficients of subscales were reported between 0.57 and 0.76 (Lee et al., 2017). In the present study, the reliability of this scale was 0.73 by Cronbach's alpha method. Multiple regression was used to test the research hypotheses.

Results

Mean and standard deviation of emotional-social competence, academic engagement, self-efficacy and perception of school climate and the result of Kolmogorov-Smirnov test for data normality test are presented in Table 1. According to Table 1, the data of all variables were normal.

Table 1. Mean, standard deviation and normality test results of emotional-social competence, academic engagement, self-efficacy and perception of school climate

Variable	Mean	SD	N	K-S test	*p*
Emotional-social competence	91.58	5.84	380	.78	.34
Academic engagement	75.81	4.65	380	.98	.28
Self-efficacy	17.85	2.23	380	.86	.31
Perception of school climate	142.17	7.56	380	1.02	.18

Before testing the hypotheses by multiple regression, the regression assumptions including linearity, homogeneity of variance and independence of the residual scores were examined and the results showed that all assumptions were confirmed. The regression results are presented in table 2.

Table 2. Regression results to predict socio-emotional competence based on academic engagement, self-efficacy and perception of school climate

Model	R	R^2	F	*P*	Predictors	B	SE	β	*P*
1	.62	.39	66.65	.001	Constant	1.41	.23	-	.001
					Academic engagement	.14	.03	.22	.001
					Self-efficacy	.27	.03	.43	.001
					Perception of school climate	.18	.04	.19	.001

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According to Table 2, academic engagement (β = 0.22, P = 0.001) significantly predicts socio-emotional competence, which means that as students' academic engagement increases, their socio-emotional competence increases. Also, academic self-efficacy (β = 0.43, P = 0.001) positively and significantly predicts emotional-social competence, which means that with increasing students' academic self-efficacy, their socio-emotional competence increases as well. Likewise, perception of school climate (β = 0.19, P = 0.001) positively and significantly predicts emotional-social competence, which means that with increasing perception of school climate, emotional-social competence of students increases. According to the results, academic self-efficacy with a standardized coefficient (β = 0.43) in comparison to other predictor variables is the strongest predictor of students' emotional-social competence.

Discussion

The aim of this study was to predict emotional-social competence based on academic engagement, self-efficacy and perception of school climate in high school students in Minab. Findings indicated that academic engagement, self-efficacy and perception of school climate significantly predicted emotional-social competence. The findings are consistent with previous studies.

The finding that academic engagement significantly predicts socio-emotional competence is consistent with the research of Hurd and Sellers (2013), and Oriol-Granado, Mendoza-Lira, Covarrubias-Apablaza, and Molina-López (2017). When students are actively involved in school through their thoughts, feelings, and actions, their success is increased and prevents them from dropping out. As a result, the student's attention is absorbed and he or she spends his or her energy and time doing the task, and consequently becomes committed and involved to do the task well. This sense of commitment makes the student insist on completing the task and spending more time doing it. When a student engages in his / her academic activities or any other work, he / she does not notice the passage of time, therefore, he enjoys doing that activity and experiences high productivity in his work. This will increase his desire to continue on the path and ultimately increase his social emotional competence. The greater the emotional involvement of students, the greater their social emotional competence.

According to the findings of the present study, academic self-efficacy is the strongest predictor of socio-emotional competence. The findings are consistent with the studies of Putwain, Sander, and Larkin (2013), Hayat, Shateri, Amini, and Shokrpour (2020) and Rezaei Gazki, Delavar, and Samavi (2019). Academic self-efficacy specifically means confidence in completing academic tasks such as reading books, answering classroom questions, and preparing for exams (Mohsen, 2017). Some believe that high levels of academic self-efficacy lead to higher scores and consistency in assignments (Esmaeili, Sohrabi, Mehryar, & Khayyer, 2019). As a result, students with higher academic self-efficacy will have better academic motivation, use more effective learning strategies, and ultimately perform better. People with strong self-efficacy show a higher tendency towards efficient planning, higher performance, new ideas and new ways to meet their needs. Schunk and Pajares (2002) believe that when a student believes that

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he / she has the ability to progress and achieve success, he / she gains academic self-efficacy. Self-effective students, especially when faced with problems, show more hard work and perseverance than those who doubt their abilities, and this hard work increases their emotional and social competencies.

According to our findings, perception of school climate significantly predicts socio-emotional competence. The findings are consistent with the research of Loukas and Murphy (2007) and Way, Reddy, and Rhodes (2007). The school climate is based on the patterns of students 'and teachers' experiences of school life and reflects the norms, goals, values, interpersonal relationships, teaching and learning methods, and organizational structures of schools that supports the sense of social, emotional, and physical security in school (Cohen, McCabe, Michelli, & Pickeral, 2009). M.-T. Wang (2009) examined the relationship between middle school students 'perceptions of the school climate and students' deviant behaviors and depressive symptoms. The results showed that adolescents who considered their school to have a positive school climate were less likely to engage in deviant behaviors and reported less depressive symptoms. As a result, having a positive perception of the school climate can prevent deviant behaviors and increase positive behaviors and characteristics, including emotional-social competencies.

In general, the findings of the present study support the role of motivational and cognitive variables in students' emotional-social competencies. Accordingly, teachers, psychologists and school counselors are advised to pay attention to training and strengthening the emotional-social competencies of learners in addition to teaching cognitive skills. Interested researchers are suggested to study the effect of emotional-social competencies training on learners' cognitive, motivational and behavioral outcomes in future research. The present study has been associated with limitations that should be considered in generalizing the findings. The use of self-report questionnaires and the desire of respondents to present a positive self-image and study on high school students has been the most important limitations of the study.

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