



Effects of Parents' Education and Academic Involvement on ESP Learners' Self-Regulation and Language Achievement: A Structural Equation Modelling Analysis

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Abstract

Self-regulated learning is among the factors receiving considerable attention in educational psychology. Moreover, parents' education and their academic involvement have found to have their own places in learners' academic success. Considering the importance of the issue, the present study probed the relationship between parents' education levels and their academic involvement, with Iranian ESP learners' self-regulation and language achievement. The participants of this study were 460 Iranian university learners selected out of 575 students. As the instruments of this study, a demographic data sheet, Ryan (2005) Parental Involvement Questionnaire, as well as the modified version of Tseng, Dornyei, and Schmitt's (2006) self-regulatory scale were used. In order to analyze the data, Structural Equation Modeling was used through the AMOS program. The results of the proposed model demonstrating parents' education levels, parents' academic involvement, as well as learners' self-regulation and language achievement fit well with the data. The results of SEM showed that parents' education levels positively and significantly correlated with the learners' self-regulation. Furthermore, the findings of path analysis showed a positive and significant indirect relationship between parents' education and learners' language achievement. Therefore, it was concluded that parents' involvement mediated the relationship between parents' education levels and learners' self-regulation and language achievement.

Keywords: ESP, Language achievement, Parents' academic involvement, Parents' education levels, Self-regulation

1. Introduction

Self-regulation has gained significant attention in educational research. Self-regulated learning (SRL) can be defined as a learner's proactive control over his/her thoughts and behaviors while involved in the active use of self-regulatory strategies to achieve goals (Zimmerman, 2011). The claim is that self-regulated learners are more dynamic, resourceful, and effective in their academic performance (Zimmerman & Schunk, 2011). Pintrich (1999) exclaimed that self-regulated learners show a higher sense of motivation in learning causing them to evade procrastination. Self-regulation plays a vital role in the educational context as a large number of studies have confirmed its facilitative influence in academic performance. Many researchers (e.g. Pintrich, 1999; Sahebkhair, & DavatgariAsl, 2014) have pointed to the value of using self-regulatory strategies in the field of second/foreign language learning. In this regard, researchers have focused on self-regulation role in different facets of language learning.

Self-regulation like many other variables is under the influence of external and internal aspects among which we can refer to the role played by environmental factors. Vygotsky (1978; cited in Turuk, 2008) claimed that a child's learning is the result of the collaboration between the environment around him/her and the tools he/she has in access. A major contribution of Vygotsky's theory of cognitive development is the emphasis he put on social aspects both in cognitive and psychosocial development. Due to his sociocultural theory, research attention has been shifted from the individual to the influence of socio-interactive components such as the role of parental factors on a child's learning. Parents are the most immediate relation of a child. Therefore, their financial status and education do influence a child's cognitive, social, and affective variables. It seems that parents with higher education levels may better understand their children's educational needs and aptitude and can, therefore, help their children in their early education which may affect their proficiency in their relative area of knowledge accordingly (AsadKhan, Iqbal, & Tasneem, 2015; Jafarigohar & Morshedian, 2014; Tasnimi & Maftoon, 2014). Moreover, parents' academic involvement can support and guide the child to achieve more academic success pointing to an increasing need for improving students' self-regulatory strategies by parents' academic involvement. Thus, this study aimed to explore the relationship between parents' education levels and their academic involvement with self-regulation and language achievement of Iranian ESP learners.

2. Literature Review

Human beings have the capacity to self-regulate various aspects of their lives. Self-regulation, as one of the most significant qualities of ours, involves the control over our thoughts, emotions, motives, manners, and environments (Mahmoodi, Kalantari, & Ghaslani, 2014). It is generally believed that self-regulation is an active and constructive process through which learners specify their learning goals trying to regulate their cognition, behavior, and motivation. Furthermore, Zimmerman (2011) referred to self-regulated learning as “the self-directive processes and self-beliefs enabling learners to transform their mental abilities into an academic performance skill” (p.3). Self-regulation helps individuals adapt themselves to the environment with the help of their inner potentials. An individual’s degree of self-regulation affects how he/she interacts with external areas which are the result of reciprocal interaction between personal (covert), environmental, and behavioral determinants. Oxford and Nyikos (1989) added that applying some strategies, including self-regulation can lead to developing more responsible learners.

Among various external factors, Vygotsky pointed to the role of environmental interaction in shaping a child’s cognition (Turuk, 2008). He developed the Sociocultural Theory of Cognitive Development in the early 20th century under the influence of constructivism. He classified the environmental factors as human (e.g., the child’s parents, teachers, siblings, and peers) and symbolic mediators (what brings changes in the child’s performance) and denoted that human mediator in comparison to the other factors plays a more influential role in learning. The extent to which human mediators can be effective depends upon the kind of involvements these people make in learning.

Vygotsky claimed that children’s cognitive development is enhanced through interaction with the environment and the people around them whom he called ‘significant others’ (Turuk, 2008). Later, he presented another closely related concept as ‘scaffolding’ which asserts that the help provided for a child in the learning process by the ‘significant others’ enables him to perform a task. He believed that these people including parents, peers, and teachers play a vital role in their learning. This assistance or ‘guidance’ is geared in order to fit the learners’ current levels of knowledge. In this way, those who experience more problems in performing a task will receive more hints and prompts. Correspondingly, he introduced the Zone of Proximal Development (ZPD) stating that

there is a distance between a child's actual and potential ability to perform a task and that most children can successfully accomplish a task with the help of more knowledgeable others. With the introduction of ZPD, Vygotsky emphasized the role of the social environment in developing learners' cognitive development. Since parents are the most immediate people children interact with, it seems that their socioeconomic status is effective in developing their children's character, behavior, attitude, and academic success.

Most researchers have found a significant positive association between self-regulation and academic success (e.g., Fatemipour & Najafgholikhani, 2015; Mahmoodi, Kalantarib, & Ghaslanic, 2014; Zimmerman & Schunk, 2011). For instance, Gu and Johnson (1996) reported a strong relationship between self-regulatory learning, English language proficiency and vocabulary knowledge. Moreover, examining the relationship between parents' influence on academic achievement and motivation of children, Wigfield, Schiefele, Eccles, and Roeser (2007 as cited in Butler, 2013) found a relationship between parents' education and beliefs with children's academic success. They claimed that parents' general and specific behavior such as encouraging creative activities and creating an academically oriented environment are influential in the child's success at school. Furthermore, it was found that the level of English language proficiency of parents had a relationship with the child's achievement and motivation to some degree. They concluded that parents' education level influence the academic performance of students.

Among the few studies conducted so far, we can refer to the study done on Early Language Learning in seven European countries (ELLiE). The results of the study pointed to the role of parents' education levels in EFL learning. In addition, the amount of exposure to the target language at home and the parental use of the target language were also reported to be effective (Enever, 2011). Zou and Zhang (2011) also found that students' language learning was influenced by their parents' educational levels. It was shown that when children feel that their parents are involved and monitor their educational attainment, they are more likely to perform better at school. Besides, the level of parents' education has a noticeable effect on teenagers and adolescents' willingness to continue education and attain higher educational success (Cotton & Wiklund, 2005; as cited by Azhar, Nadeem, Naz, Perveen, & Sameen, 2013). They also claimed that parents' involvements cause students to perform better in their education.

In an EFL context like Iran, this relationship seems more important since the only exposure learners might have to English outside the classroom context is at home. However, the point is that the relationship between learners' parental educational levels, their academic involvement, and their English language development has not been investigated systematically to the researchers' knowledge. Among academic subjects, it is predictable that English language education may have a particularly unique relationship with parents' educational levels. It seems that higher educated parents are more willing to enroll their children in language classes, spend more time with them practicing English, and encourage their children to learn English more. Correspondingly, parents with higher education levels help their children be more autonomous and independent leading to more self-regulated language learners.

The relative paucity of research on the relationship between these variables as well as the growing concern regarding the gaps in access to efficient English language education in Iran motivated this research. In the few last decades, parents in our country have started continuing their education which has led to rapid progress in parental education levels, especially in urban areas (Moinifar, 2011) which, in turn, has caused a growing class of parents who are willing to invest in their children's education on a scale that has never happened before. Although, it is noteworthy that there still exist tremendous disparities in educational expenditures by region, and by schools within a given region. While higher educated parents in urban areas have various options available to them for their children to receive high-quality education, lower educated parents in rural areas face increasing difficulties to do so without having sufficient capital (Shahabadi, Saraee, & Khalajabadi Farahani, 2015). Regarding the importance of English language learning in the globalization era and its importance in educational attainment and future career choices of university students on the one hand and the influence of self-regulation, parental academic involvements, and education levels on English language learning on the other, the present study was conducted in an Iranian context to investigate the issue.

Therefore, the current study is focused on understanding the following relationships:

1. What is the relationship between parents' education levels, parent academic involvement and ESP learners' English language achievement?
2. What is the relationship between parents' education levels, parent academic involvement, and ESP learners' self-regulation?

3. What is the relationship between parents' education levels and their academic involvement with the learners' self-regulation and language achievement?
4. Does parents' involvement mediate the relationship between parents' education level, with learners' self-regulation and their language achievement?

3. Methodology

3.1. Design and Context of the Study

This study was a descriptive, correlational type of research investigating the relationship between parents' educational level and their academic involvement with ESP learners' self-regulation and language achievement. The study was conducted at Islamic Azad University, East Tehran Branch in Tehran.

3.2. Participants

The participants of this study were 460 Iranian ESP university learners selected out of 575 students. There were 212 females and 248 males. Their ages varied from 20 to 35 years old. They were doing their general English courses and their majors were different. Besides, it should be noted that for this study, students were studying at different academic years.

3.3. Instruments

Regarding the purpose of the study, the following instruments were used in the study:

3.3.1. Demographic Information Sheet

A demographic data sheet was given to the participants to gather some information regarding their age, gender, academic fields of study, and their parents' education levels (Appendix A).

3.3.2. Ryan Parental Involvement and Motivational Factors Questionnaire

Ryan (2005) Parental Involvement and Motivatioal Factor Questionnaire was used to gather information regarding the academic involvement of the parents whose children were the participants of the present study. It consisted of eight questions adapted to draw on the

learners' parents' level of academic involvement (Appendix D; see Appendix E for the English format of the questionnaire).

3.3.3. Self-regulation Scale

In order to measure self-regulation, the modified version of Tseng, Dornyei, and Schmitt (2006) self-regulatory scale was used (Appendix B; see Appendix C for the English format of the questionnaire). Before administration of the questionnaire, some items were modified to fulfill the purpose of the study. It consisted of 28 Likert-scale statements ranging from completely agree, sometimes agree, a little agree, a little disagree, sometimes disagree, and completely disagree. The scale sought to conform to Dörnyei's theory regarding the constructs comprising self-regulation for language learning: environmental awareness control (seven items), boredom control (five items), emotion control (ten items), and goal control (six items). The total reliability of the questionnaire calculated via Cronbach's alpha was found to be 0.86.

The three questionnaires were translated to assure the comprehensibility of the questions on the part of the participants and then, for the purpose of validity, it had been back-translated by some experts in the field and those items which were considered problematic were modified. The reliability of the translated versions of the questionnaires estimated through Cronbach's alpha was found to be 0.85, 0.79, and 0.81 respectively.

3.4. Data Collection Procedure

After homogenizing the participants, they were asked to complete the demographic information questionnaire, self-regulation questionnaire, and the parents' involvement questionnaire. The questionnaires were coded and the learners were required not to write their names. They completed the questionnaires and submitted them to the researchers during the following weeks. Because the learners were already briefed regarding the study purpose (that is investigating the relationship between their parents' education levels and academic involvement with their own self-regulation and language achievement) and that all of them were guaranteed anonymity as well as confidentiality, it was hoped that these would add the validity to the students' report of their academic average. As an incentive, the participants were given the opportunity to receive feedback about the results of their performance on the questionnaires after the study.

3.5. Data Analysis Procedure

In this study, the assumption was that parents' education levels and their academic involvements have a relationship with their children's self-regulation and language achievement. To examine the assumption, Structural Equation Modeling was used through the Analysis of Moment Structures (AMOS) program (Arbuckle, 2003).

Previous research has provided evidence for the rationale to examine the relationships between parental education levels, parental involvement, and language achievement. However, considering the fact that the relationship between parents' education levels and parents' involvement, with ESP learners' self-regulation and language achievement, has never been examined in a single study, the challenge was to specify a model that could be theoretically estimated in the AMOS (Schumacher & Lomax, 2010). To this end, two starting hypothetical models based on the previous studies were proposed showing the relationships between the variables of the study. Figure 1 shows the hypothesized models of the relationships between parents' education levels, parents' academic involvement with ESP learners' self-regulation, and language achievement. As stated before, the figure was drawn using the SEM program Amos. All the results reported in this study were analyzed using the Amos.

Question one aimed to understand the interrelations among parents' education levels, parents' academic involvement, and ESP learners' English language attainment. Question two sought to investigate whether ESP learners' self-regulation may differ from their parents' education level and academic involvement in English language skill (reading) and sub-skills in question (grammar and vocabulary). Finally, the third and the fourth questions probed on the mediatory effect of parents' educational involvement on the learners' self-regulation and language achievement. As it will be explained in more details below, because only the reading, vocabulary, and grammar performance of the focus group students were evaluated (due to the logistical challenge of evaluating all of the participants' English language performance), the questions are only related to the relationship of the mentioned parental factors with the learners' reading comprehension, grammar and vocabulary. However, as Wright (1960 a&b; cited in Kline, 2013) proposed, in order to further understand how correlations between the variables are linked with model parameters and to estimate the significance of the effect of parents' education levels and parental parents' academic involvement on self-regulation and language achievement, a path analysis was performed.

Parents’ education levels and their involvement as exogenous variables and learners’ self-regulation and language achievement were served as endogenous variables in this study. Moreover, parents’ involvement was regarded as the mediator in the second model. Both models were identified. Moreover, since, the data used in this study were both ordinal and interval, in order to examine the normality of the data, Maximum likelihood was used since “it assumes multivariate normality although it is not scale dependent” (Kline, 2013, p.12).

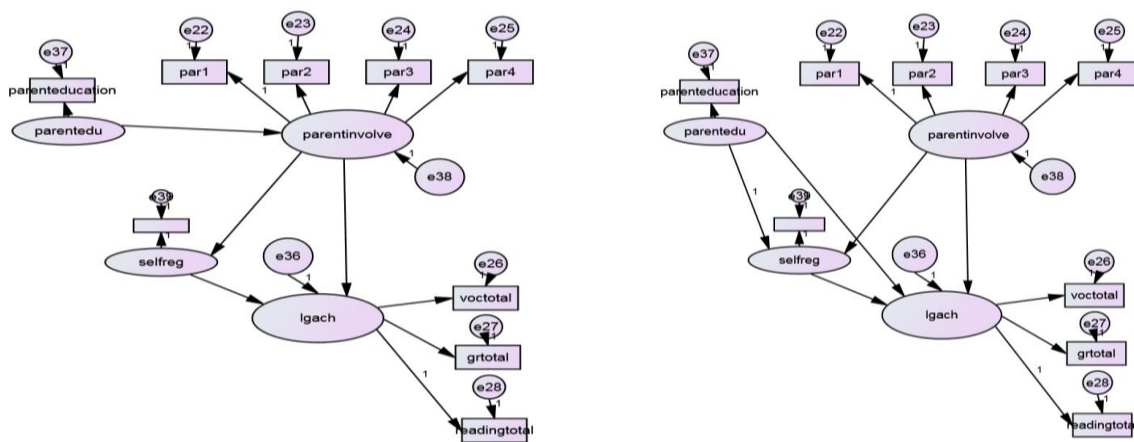


Figure 1. The starting measurement models

Afterward, in order to further investigate the relationships between parents’ education levels and their academic involvement with the learners’ self-regulation and language achievement, four structural models were proposed based on the first two models and were tested using Amos. The data of the aforementioned 460 respondents were used for the modeling process. In the first hypothetical model (Figure 2), the relationship between parents’ education levels, parent involvement, and language achievement was examined. Next, in order to scrutinize into the relationship of parents’ education levels and their academic involvement with ESP learners’ self-regulation, the third model was proposed (Figure 3). Subsequently, in order to investigate the third and the fourth research questions, two models consisting of all variables of the study together with their subscales were proposed (Figures 4 and 5). Finally, a path analysis was performed to investigate the total, direct, and indirect effects of parents’ education levels and parents’ academic involvement on learners’ self-regulation and language achievement. As Wright (1960a, b; cited in Kline, 2013) proposed, path analysis is used with the structural coefficients

estimated on the basis of the correlation of observable variables. It also provides the opportunity to go through a causal explanation which is far from the results of the partial correlation analysis.

4. Results

4.1. Relationship between Parents' Education Levels and Language Achievement Mediated through Parental Involvement

In order to analyze the relationships between parents' education levels, parents' involvements, and the learners' language achievement, two models were proposed. The first one assumed that parents' education levels and parents' involvement as two separate variables, affected language achievement. The model was tested, and it did not show an acceptable model fit with the data (Table 1). Therefore, another model was suggested in which parents' education levels correlated with language achievement through parents' academic involvement. The analysis demonstrated that parents' education levels had a positive relationship with parents' academic involvement ($r = .27$, $p < 0.001$). Moreover, it was found that parents' academic involvement had a positive relationship with language achievement ($r = .31$, $p < 0.001$), vocabulary learning ($r = .86$, $p < 0.001$), reading comprehension ($r = .68$, $p < 0.001$), and grammar accuracy ($r = .88$, $p < 0.001$) of Iranian ESP learners. Besides, fit indices revealed the hypothetical model fits the data moderately ($\chi^2 = 158.3$ with $df = 19$ ($p < 0.001$); (CFI) = .90; (TLI) = .86; (RMSEA) = .12; (SRMR) = .04.

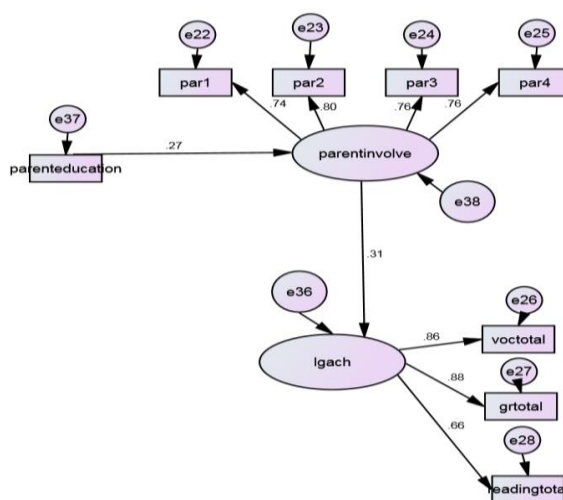


Figure 2. Relationship among parents' education level, involvement, and Lg achievement components

Table 1.

Comparison of Model Fit Summary in the Two Hypothetical Models

Description	X2	df	P-value	CFI	TLI	RMSEA	SRMR
Model 1	186	19	.00	.89	.84	.13	.08
Model 2	158.3	19	.00	.90	.86	.12	.04

4.2. Relationship Between Parents’ Education Levels and Self-Regulation Mediated Through Parental Involvement

For the analysis of the relationships between parents’ education levels and their academic involvement with the learners’ self-regulation, two separate models were suggested; one with the assumption that parents’ education levels and academic involvement caused distinct variations in self-regulation and the other assuming that parents’ education levels affected self-regulation through the mediation of parents’ academic involvement which showed a better model fit (Table 2). Examination of the second model showed that parents’ education levels had a positive impact on parents’ academic involvement ($r = .25, p < 0.001$). Furthermore, it was found that parents’ academic involvement had a positive relationship with the learners’ self-regulation ($r = .40, p < 0.001$) of Iranian ESP learners. Moreover, fit indices revealed the hypothetical model fit the data moderately ($\chi^2 = 1260.2$ with $df = 401$ ($p = .00$); (CFI) = .87; (TLI) = .86; (RMSEA) = .06; and (SRMR) = .10).

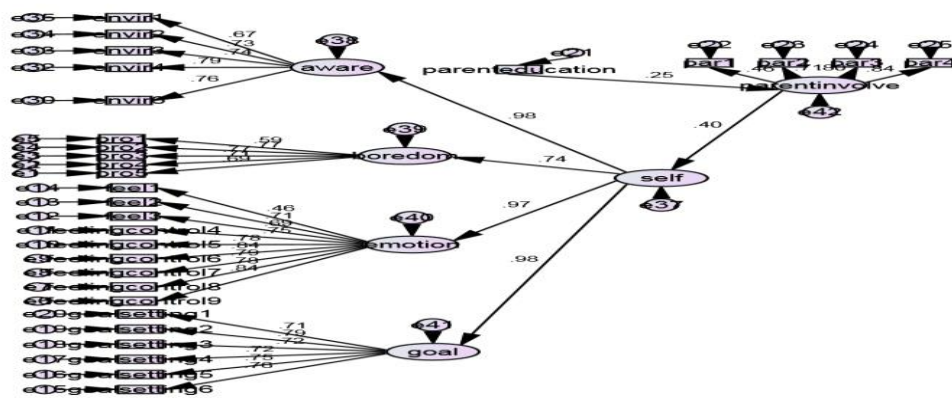


Figure 3. Relationships between parents’ education levels, involvement, and learners’ self-regulation

Table 2.

Comparison of Model Fit	X2	df	P-value	CFI	TLI	RMSEA	SRMR
Model 1	1710.6	402	.00	.81	.79	.08	.26
Model 2	1260.2	401	.00	.87	.86	.06	.10

4.3. Relationship Among Parents’ Education Levels, Academic Involvement, Self-Regulation, and Language Achievement

Finally, in order to further investigate the relations between parents’ education levels, parents’ academic involvement, self-regulation, and language achievement, two structural models were proposed. In the hypothetical starting model (see Figure 4), it was assumed that parents’ education levels and their academic involvement, as two separate exogenous variables, have a relationship with the learners’ self-regulation and language achievement. First, the variable self-regulation was assumed to be related to parents’ education levels and parents’ academic involvement, and second, language achievement was hypothesized to be correlated with parents’ education levels and parents’ academic involvement.

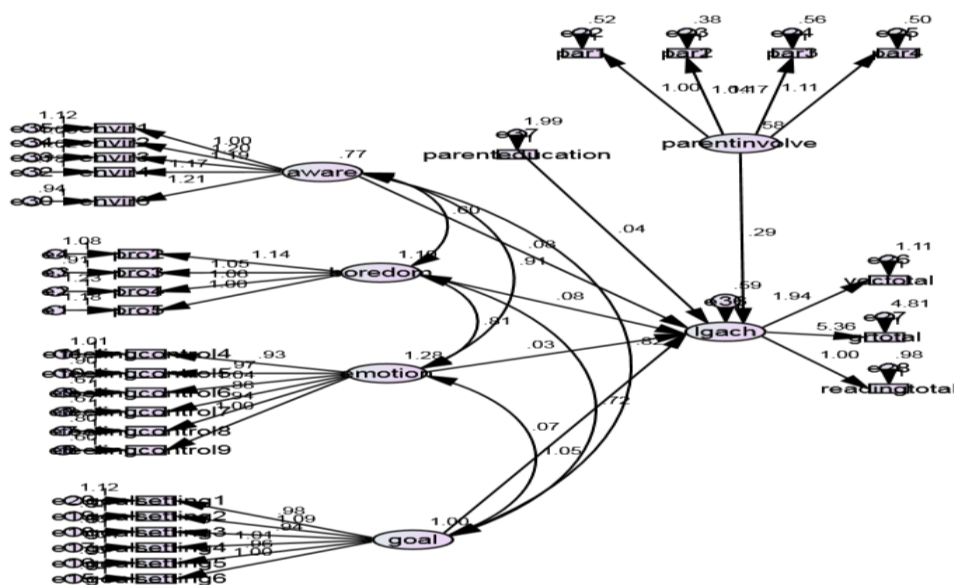


Figure 4. The first hypothetical model

Fit indices showed the hypothetical starting model moderately fit the data ($\chi^2 = 1834.5$ with $df = 488$ ($p = .00$); (CFI)= 0.82; (TLI)= 0.81; (RMSEA)= .07; (SRMR)= .27; see Table 3, Model 1). While the hypothetical model fits the data, many of the relations tested in this structural model were weak and statistically non-significant. Therefore, another assumption was made regarding the relationship between parents' education levels, parents' academic involvement, self-regulation, and language achievement as follows:

The relationship between parents' education levels, and their children's self-regulation and language achievement is mediated by parents' academic involvement.

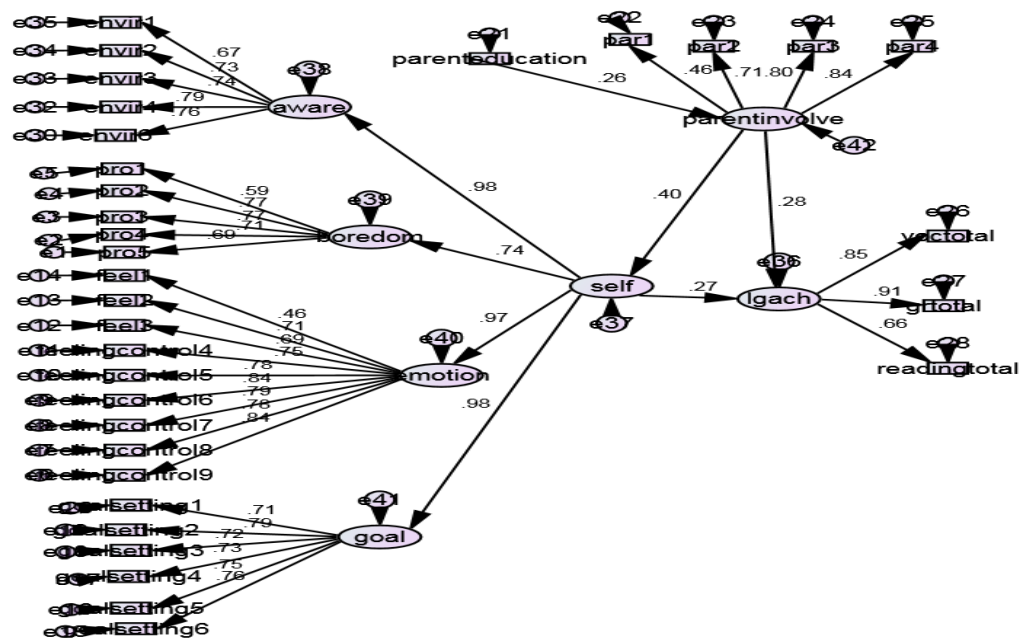


Figure 5. The Second Hypothetical Model

After all, the non-significant relations were excluded from the model (assuming the one-directionality in the relations, the relations were tested one-sided (at $p = .05$) resulting in a more economic parsimonious structural model emerged. The final structural model also provided an adequate fit to the data ($\chi^2 = 1406.1$ with $df = 489$ ($p = .00$); CFI= .88; TLI= .87; RMSEA= .06; SRMR= .10; see Table 3, Model 2). Thus, comparing the two models showed that the model fit indices were more acceptable in the second model. However, SRMR was still above the required value of .05 indicating that there was some unexplained variance in the model.

Table 3.

Comparison of Model Fit Summary in the Two Hypothetical Models

Description	X ²	df	P-value	CFI	TLI	RMSEA	SRMR
Model 1	1834.5	488	.00	.82	.81	.07	.27
Model 2	1406.1	489	.00	.88	.87	.06	.10

4.4. Investigation of the Total, Direct, and Indirect Effects of Parents' Education Levels, Academic Involvement on Self-Regulation and Language Achievement

In order to further scrutinize how correlations between variables can be linked with model parameters and to assess the significance of the effect of parents' education levels and parents' academic involvement on self-regulation and language achievement (Wright 1960a & b; cited in Kline, 2013), a path analysis was performed. Path Analysis is the application of structural equation modeling without latent variables. One of the advantages of path analysis is the inclusion of relationships among variables that serve as predictors in one single model.

One specific and common example is a mediation model. Even though it is not the only way of assessing mediation, it is a very intuitive and efficient one (Wright, 1960a & b; cited in Tarka, 2018). The model here shows a mediational relationship between parents' education level and their academic involvement with their children's self-regulation and language achievement.

Table 4.

Standardized Total Effect (Group Number 1- Default Model)

		Parents' Education Level	Parents' Involvement	Self- Regulation	Language Achievement
<i>Corrected Model</i>	Parents' Education Level	.000	.258	.104	.100
	Parents' Involvement	.000	.000	.403	.387

The standard total effect of parents' education level on parents' involvement is .258 ($p = .012$) while this effect amounted to .104 ($p = .012$) for self-regulation and .100 ($p = .004$)

for language achievement. The results showed that the effect of parents' education level on language achievement is significant.

Table 5.

Standardized Direct Effect

	Parents' Education Level	Parents' Involvement	Self-Regulation	Language Achievement
Parents' Education Level	.000	.258	.000	.000
Parents' Involvement	.000	.000	.403	.280

The standard direct effect of parents' involvement on self-regulation is .403 while this effect amounts to .280 for language achievement. In addition, the standard direct effect of parents' education levels on parents' involvements amounts to .258 ($p = .012$).

Table 6.

Standardized Indirect Effect

	Parents' Education Level	Parents' Involvement	Self-Regulation	Language Achievement
Parents' Education Level	.000	.000	.104	.100
Parents' Involvement	.000	.000	.000	.107

The standardized indirect effect of parents' education levels on self-regulation is .104 while this effect on language achievement is .107. That is, due to the indirect (mediated) effect of parents' involvements on language achievement, when parents' involvements go up by 1 standard deviation, language achievement goes up by 0.107 standard deviations. This is in addition to any direct (unmediated) effect that parents' involvements may have on language achievement.

Table 7.

Standardized Indirect Effect- Upper Bounds, Lower Bounds and Two-Tailed Significance (BC)

	Parents' Involvement			Self-Regulation			Language Achievement		
	Upper bound	Lower bound	Two-tailed significance	Upper bound	Lower bound	Two-tailed significance	Upper bound	Lower bound	Two-tailed significance
Parents' Education Level	.000	.000	.....	.123	.046	.012	.096	.040	.004
Parents' Involvement	.000	.000	.....	.000	.000	.....	.293	.112	.013

Considering the above table, the standard indirect effect of parent education on language achievement is significant $p = .004$, 95% CI [.040, .096]. Besides, as it is shown in Tables 7, this effect on self-regulation is significant, too: $p = .012$, 95% CI [.046, .123].

5. Discussion

In this study, the purpose was to explore the relationship between parents' education levels, parents' academic involvement with ESP learners' English language achievement as well as their self-regulation. The primary goal of the social sciences is not to conduct an elementary statistical description and to specify individual factors and behaviors, but to determine the cause-effect relations among the variables of interest. Because of the complexity of the latent character of many social phenomena, sophisticated methods and techniques of statistical data analysis are required, both of which refer to causal analysis and the procedures of encompassing many variables based on Structural Equation Modeling (SEM; Tarka, 2018). Therefore, in order to investigate the relationships between the variables of the study, structural equation modeling was performed using the Amos. Moreover, in order to test whether parents' involvement mediates between parents' education levels and the learners' language achievement as well as self-regulation, SEM was used due to its priority over the mediation approach (Zhao, Lynch, & Chen, 2010).

The results of a four-factor CFA model representing parents' education levels, parents' academic involvements, and ESP learners' self-regulation, as well as language

achievement indicated an acceptable fit with the data ($\chi^2 = 1406.1$ with $df = 489$ ($p < 0.001$); CFI=.88; TLI=.87; RMSEA=.06; SRMR=.10). Although, the chi-square test of the model was non-significant (Hair, Anderson, Tatham, & Black, 1998), and some of the fit indices were below the threshold levels (for example, CFI and TLI are expected to be $> .95$; Schumacker & Lomax, 2010), the RMSEA test of close fit was well below the threshold of .08 (Hair et al., 1998). Therefore, given that our model included four main variables with more than 80 indicators, the model fit can be regarded as satisfactory.

The analysis demonstrated that parents' education level had a positive relationship with parents' academic involvement ($r=.27$, $p < 0.001$). It may refer to the point that higher level of education in parents might lead to their more fruitful involvement in their children's academic life. In addition, it was found that parents' academic involvement had a positive relationship with language achievement ($r=.31$, $p < 0.001$), vocabulary learning ($r=.86$, $p < 0.001$), reading comprehension ($r= .68$, $p=.000$), and grammar accuracy ($r = .88$, $p < 0.001$) of Iranian ESP learners. Students who had the support of their parents while studying were more eager and motivated to study and gained better academic results. Furthermore, it was found that parents' academic involvement had a positive relationship with self-regulation ($r=.40$, $p < 0.001$) of Iranian ESP learners. This finding may be attributed to the fact that more educated parents with higher levels of academic involvement can guide their children and provide them with better learning strategies (Gu & Johnson, 1996; Fatemipour & Najafgholikhan, 2015).

Moreover, it was hypothesized that parents' academic involvements mediated the relationships between parents' education levels and learners' language achievement on the one hand and their self-regulation on the other. The results of structural equation modeling ($\chi^2 = 1406.1$ with $df=489$ ($p < 0.001$); CFI=.88; TLI=.87; RMSEA=.06; SRMR=.10) showed that parents' education level positively and significantly correlated with the learners' self-regulation. Furthermore, the findings of path analysis, used to quickly decompose the correlations into various causal sources, showed a positive and significant indirect relationship between parents' education level and the learners' language achievement (Standard Indirect effect= .100, $p=.107$) as well as self-regulation (Standard indirect effect= .104, $p < 0.001$). Therefore, it can be claimed that parents' higher education levels have a relationship with the degree of their academic involvement which in turn leads to more academically successful and self-regulated learners. The results are in line

with those found by AsadKhan, Igbal, and Tasneem (2015) who investigated the effect of parents' educational level on students' academic performance. The findings showed a significant positive relationship between parents' education level and students' academic achievements. Moreover, since the results revealed a positive and significant correlation between parents' education level and ESP learners' self-regulation ($r = .40, p < 0.001$) and language achievement ($r = .28, p < 0.001$), the mediation can be classified as "partial" or "complementary" (Zhou, Oxford, & Wei, 2016, p. 199). Therefore, it can be concluded that parents' involvement mediated the relationship between parents' education levels as well as the learners' self-regulation and language achievement.

This study examined the ways in which student's academic achievements are effected by parental education and their academic involvement. Attempts were also made to find the relationship between parents' education levels and academic involvement with their children's self-regulation. Analysis of the data indicates that students whose parents had a higher education level performed better than the other learners. Similarly, parents' education boosted up their children's self-regulation. This finding could be attributed to the variation in the time the parents devote to their children's academic success which affected their academic achievement. This finding suggest that parents' academic involvement, even at university level, enables the students to have better performance in language achievement. Besides, it seems that parents with higher education levels support their children more and guide them to have more self-regulated learning.

6. Conclusions

The past few decades have witnessed the change of attention to the concept of self-regulation. Tseng, Dornyei, and Schmitt (2006) stated that the use of self-regulatory strategies helps learners improve their proficiency. Moreover, some studies (e.g., Oxford & Nyikos, 1989) specified that applying optimal strategies in learning would result in more autonomous, independent, and responsible learners.

The present study examined the relationships between parents' education level and parents' academic involvements with ESP learners' self-regulation, and language achievement. Structural Equation Modeling analyses showed that parents' academic involvements partially mediated the relationships between parents' education level and the learners' self-regulation as well as language achievement. Therefore, the findings showed

that the relationships between parents' education level with Iranian ESP learners' self-regulation and language achievement can be partially explained by their parental involvements. Consequently, parents' education level and their academic involvement can be regarded as a contributor to the development of their children's self-regulation that may be characterized as language achievement. Correspondingly, parents' educational involvement showed to influence facets of language achievement and such an effect may be depicted on facets of self-regulation as well. Furthermore, the general belief is that educated parents can realize their children's educational needs and aptitude better. Furthermore, their academic involvement will help a child build his/her confidence and facilitate the process of learning (e.g., Azhar, Nadeem, Naz, Perveen & Sameen, 2013). Parents' academic involvement and their education levels do have a considerable relationship with a child's academic attainment and children with higher educated parents are found to be more successful during school years and expect better future professional success.

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Appendix A: Demographic Information Sheet

به نام پروردگار توانا

نتایج حاصل از پرسشنامه‌هایی که در اختیار شماست، به منظور آشنایی بیشتر با خصوصیات دانشجویان عزیز استفاده خواهد شد. دانشجوی عزیز اطلاعات خواسته شده در فرم زیر به منظور آشنایی با شما است. خواهشمند است در تکمیل آن مساعدت لازم را نموده و به شما اطمینان داده می‌شود که اطلاعات موجود تنها نزد استاد باقی خواهد ماند. در ضمن پاسخ‌گویی به سوالات، داوطلبانه بوده و به انتخاب دانشجو است.

مشخصات:

- جنسیت: دختر پسر
- سن:
- دانشجوی: سال اول سال دوم سال سوم سال چهارم
- رشته تحصیلی:
- ترم:
- میزان آشنایی با زبان انگلیسی: خیلی خوب خوب متوسط ضعیف
- منطقه محل سکونت:
- میزان تحصیلات پدر:
- میزان تحصیلات مادر:
- شغل پدر: شغل مادر:

قبلاً از همکاری شما صمیمانه سپاسگزاری می‌شود.

Appendix B :Self-regulation Questionnaire

مخالفم	موافقم		۱ به محض اینکه تازگی مطالب انگلیسی از بین می‌رود به راحتی علاقه‌ام را به آنها از دست می‌دهم.		
	کم	متوسط	زیاد	کم	متوسط	زیاد
مخالفم	موافقم		۲ وقتی در یادگیری زبان انگلیسی دچار استرس می‌شوم می‌دانم چطور استرس را کاهش دهم.		
	کم	متوسط	زیاد	کم	متوسط	زیاد
مخالفم	موافقم		۳ وقتی در حال مطالعه انگلیسی هستم و شرایط محیط نامساعد می‌شود سعی می‌کنم مشکل را برطرف کنم.		
	کم	متوسط	زیاد	کم	متوسط	زیاد
مخالفم	موافقم		۴ در زمان یادگیری انگلیسی از تکنیک‌های خاص برای دستیابی به اهدافم استفاده می‌کنم.		
	کم	متوسط	زیاد	کم	متوسط	زیاد
مخالفم	موافقم		۵ در زمان مطالعه انگلیسی من تکنیک‌های خاصی برای تمرکز دارم.		
	کم	متوسط	زیاد	کم	متوسط	زیاد
مخالفم	موافقم		۶ از متدهایی که برای کاهش استرس در یادگیری انگلیسی به کار می‌برم رضایت دارم.		
	کم	متوسط	زیاد	کم	متوسط	زیاد
مخالفم	موافقم		۷ فکر می‌کنم وقتی در حال یادگیری زبان انگلیسی هستم، سریع‌تر از حد انتظار به اهدافم دست می‌یابم.		
	کم	متوسط	زیاد	کم	متوسط	زیاد
مخالفم	موافقم		۸ از روش‌هایی که به کار برده تا بی‌حوصلگی خود را در زمان مطالعه انگلیسی برطرف کنم، خوشم می‌آید.		
	کم	متوسط	زیاد	کم	متوسط	زیاد
مخالفم	موافقم		۹ فکر می‌کنم متدهای من برای تمرکز در زمان یادگیری انگلیسی مؤثر هستند.		
	کم	متوسط	زیاد	کم	متوسط	زیاد
مخالفم	موافقم		۱۰ در زمان یادگیری انگلیسی آن‌قدر تلاش می‌کنم تا به اهدافم دسترسی پیدا کنم.		
	کم	متوسط	زیاد	کم	متوسط	زیاد
مخالفم	موافقم		۱۱ وقتی پای یادگیری زبان انگلیسی در میان باشد، از روش‌های خاصی برای به تأخیر نینداختن آن استفاده می‌کنم.		
	کم	متوسط	زیاد	کم	متوسط	زیاد
مخالفم	موافقم		۱۲ من باور دارم که می‌توانم به تمام مشکلات در یادگیری زبان انگلیسی غلبه کنم و به اهدافم در یادگیری زبان انگلیسی برسم.		
	کم	متوسط	زیاد	کم	متوسط	زیاد
مخالفم	موافقم		۱۳ وقتی در یادگیری انگلیسی دچار استرس می‌شوم فوراً با این مشکل کنار می‌آیم.		
	کم	متوسط	زیاد	کم	متوسط	زیاد
مخالفم	موافقم		۱۴ در یادگیری انگلیسی فکر می‌کنم متدهای من در جلوگیری از به تعویق افتادن کار مؤثر هستند.		
	کم	متوسط	زیاد	کم	متوسط	زیاد

مخالفم			موافقم			۱۵	در طی یادگیری انگلیسی مطمئن هستم که می توانم بر احساس بی حوصلگی غلبه کنم.
کم	متوسط	زیاد	کم	متوسط	زیاد		
مخالفم			موافقم			۱۶	وقتی در یادگیری انگلیسی دچار بی حوصلگی می شوم می دانم چطور این حس را کنترل کنم تا روند یادگیری را بهتر کنم.
کم	متوسط	زیاد	کم	متوسط	زیاد		
مخالفم			موافقم			۱۷	وقتی انگلیسی مطالعه می کنم به دنبال محیط مناسبی برای یادگیری می گردم.
کم	متوسط	زیاد	کم	متوسط	زیاد		
مخالفم			موافقم			۱۸	وقتی انگلیسی مطالعه می کنم نمی گذارم چیزی در برنامه یادگیری من اختلال ایجاد کند.
کم	متوسط	زیاد	کم	متوسط	زیاد		
مخالفم			موافقم			۱۹	در زمان یادگیری انگلیسی در مواجهه با مطالب مشکل به راحتی احساس ناامیدی می کنم.
کم	متوسط	زیاد	کم	متوسط	زیاد		
مخالفم			موافقم			۲۰	در زمان مطالعه انگلیسی دوست دارم یادگیری را به تعویق بیندازم.
کم	متوسط	زیاد	کم	متوسط	زیاد		
مخالفم			موافقم			۲۱	در گذشته وقتی انگلیسی مطالعه می کردم اغلب کار را ناتمام گذاشته و رها می کردم.
کم	متوسط	زیاد	کم	متوسط	زیاد		
مخالفم			موافقم			۲۲	در زمان مطالعه انگلیسی می دانم چطور تمرکز خود را حفظ کنم.
کم	متوسط	زیاد	کم	متوسط	زیاد		
مخالفم			موافقم			۲۳	وقتی در زمان یادگیری انگلیسی دچار استرس می شوم می دانم چطور آن را کنترل کنم.
کم	متوسط	زیاد	کم	متوسط	زیاد		
مخالفم			موافقم			۲۴	در زمان مطالعه انگلیسی می توانم مشکلاتی را که در طی روند یادگیری با آنها مواجه می شوم ابه خوبی حل کنم.
کم	متوسط	زیاد	کم	متوسط	زیاد		
مخالفم			موافقم			۲۵	در زمان یادگیری انگلیسی می دانم چطور احساسات درونی ام را کنترل کنم تا یادگیری مؤثری داشته باشم.
کم	متوسط	زیاد	کم	متوسط	زیاد		
مخالفم			موافقم			۲۶	وقتی از برنامه یادگیری انگلیسی خود عقب می مانم می دانم چطور به روند یادگیری ام سرعت ببخشم.
کم	متوسط	زیاد	کم	متوسط	زیاد		
مخالفم			موافقم			۲۷	وقتی مشغول مطالعه زبان انگلیسی هستم، به راحتی حواسم پرت می شود.
کم	متوسط	زیاد	کم	متوسط	زیاد		
مخالفم			موافقم			۲۸	در زمان یادگیری انگلیسی، می دانم که محیط یادگیری مهم است.
کم	متوسط	زیاد	کم	متوسط	زیاد		

Appendix C: Self-Regulation Questionnaire (English Format)

1. Once the novelty of learning English is gone, I easily become impatient about it.
2. When I feel stressed about English learning, I know how to reduce this stress.
3. When I am studying English and the learning environment becomes unsuitable, I try to sort out the problem.
4. When learning English, I have my special techniques to achieve my learning objectives.
5. When studying English, I have my special techniques to keep my concentration focused.
6. I feel satisfied with the methods I use to reduce the stress of English learning.
7. When learning English, I believe I can achieve my goals more quickly than expected.
8. I feel satisfied with the methods I use to eliminate the boredom in studying English.
9. When learning English, I think my methods of controlling my concentration are effective.
10. When learning English, I persist until I reach the goals that I make for myself.
11. When it comes to learning English, I have my special techniques to prevent procrastination.
12. I believe I can overcome all the difficulties in English learning and achieve my English learning goals.
13. When I feel stressed about learning English, I cope with this problem immediately.
14. When it comes to learning English, I think my methods of controlling procrastination are effective.
15. During the process of learning English, I am confident that I can overcome any sense of boredom.
16. When feeling bored with learning English, I know how to regulate my mood in order to invigorate the learning process.
17. When I study English, I look for a good learning environment.
18. When I study English, I do not allow anything to interfere with my already planned learning schedule.
19. When I learn English, I am easily upset by the challenge of more difficult materials.

20. When it comes to studying English, I tend to procrastinate the learning.
21. When I studied English in the past, I often gave up half-way during the learning process.
22. When studying English, I know how to maintain my concentration.
23. When I feel stressed about learning English, I know how to handle the stress.
24. When studying English, I can effectively solve the problems I encounter during the learning process.
25. When learning English, I know how to manage my personal emotions to make the learning efficient.
26. When I am behind my English learning schedule, I know how to speed up my learning progress.
27. When studying English, I am easily distracted.
28. While learning English, I know the importance of the environment.

Appendix D: Ryan Parental Involvement Questionnaire

مخالفم			موافقم			۱ اغلب والدینم به من می گویند که انگلیسی برای آینده من مهم است.
کم	متوسط	زیاد	کم	متوسط	زیاد	
مخالفم			موافقم			۲ والدینم مرا تشویق می کنند تا انگلیسی مطالعه کنم.
کم	متوسط	زیاد	کم	متوسط	زیاد	
مخالفم			موافقم			۳ والدینم مرا تشویق می کنند تا سعی کنم انگلیسی یاد بگیرم.
کم	متوسط	زیاد	کم	متوسط	زیاد	
مخالفم			موافقم			۴ پدر و مادرم مرا تشویق می کنند که تا حد امکان انگلیسی را تمرین کنم.
کم	متوسط	زیاد	کم	متوسط	زیاد	
مخالفم			موافقم			۵ والدین شما انتظار دارند که شما از نظر تحصیلات تا بالاترین حد پیشرفت کنید.
کم	متوسط	زیاد	کم	متوسط	زیاد	
مخالفم			موافقم			۶ اغلب با والدین خود در مورد تجربیات خود در دانشگاه صحبت می کنید.
کم	متوسط	زیاد	کم	متوسط	زیاد	
مخالفم			موافقم			۷ والدین در مورد برنامه های آموزشی تان پس از پایان دانشگاه با شما صحبت می کنند.
کم	متوسط	زیاد	کم	متوسط	زیاد	
مخالفم			موافقم			۸ والدین شما از زمان بندی امتحانات، گزارش های پیشرفت و سایر نکات درباره تحصیل شما آگاه هستند.
کم	متوسط	زیاد	کم	متوسط	زیاد	

Appendix E: Ryan Parental Involvement Questionnaire (English Format)

1. I am often told by my parents that English is important for my future.
2. My parents encourage me to study English.
3. My parents think that I should really try to learn English.
4. My parents encourage me to practice my English as much as possible.
5. Your parents expect you to go far in terms of your studies.
6. Your parents often discuss your experiences at school.
7. Your parents often talk with you about your educational plans for after university.
8. Your parents are aware of your exam timetables, progress reports, and other informative points regarding your study.