



University of Tehran press

Rethinking of the zone of proximal development: The role of parental engagement in children's English language learning skills



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ABSTRACT

The present research investigated the efficacy of parent engagement in children's learning and achievement in the English language and based on the Vygotsky's theory, it offers suggestions regarding some concepts such as adult guidance characteristics. The statistical society consisted of sixty Iranian children ranging from 9 to 10, divided randomly into three groups of experimental 1, experimental 2, and control. The research results showed significantly more learning, skill training, parent involvement, and shared activities between children and parents in the experimental1 and experimental 2 groups compared to the control group. Moreover, a positive correlation is found between parent involvement and children's achievement in all three groups. The results also showed that parents' involvement and teaching involvement, and language skills had the most influence on parents' involvement. Furthermore, teaching engagement to parents had the most significant influence on children's activities. In addition, children's activities and language skill training had the most influence on their learning.

ARTICLE INFO

Article history:

Received: 07 September 2024

Received in revised form 26 December 2024

Accepted: 01 January 2025

Available online: Winter2025

Keywords:

English language learning, language skills, parental involvement, zone of proximal development, , social networks.

Akbari, E. (2025). Rethinking Vygotsky's Theory of the Zone of Proximal Development: Redefining the Role of Parental engagement in Children's English Language Learning. *Journal of Foreign Language Research*, 14 (4), 540-560. <http://doi.org/10.22059/jflr.2024.367415.1078>.



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Publisher: The University of Tehran Press.

DOI: <http://doi.org/10.22059/jflr.2024.367415.1078>.

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1 Introduction:

Iranian families are highly interested in learning English by their children. In this regard, the education ministry and various English language teaching institutions are also trying to respond to this interest. However, they are not very successful in their work. This lack of success can be due to various reasons, including parents' unfamiliarity with the English language. Children are exposed to a lot of words in the classroom and there is no environment outside the classroom to use those words or hear them! And it is not possible for the child to use and consolidate what he has learned (Sargsyan & Kurghinyan, 2016).

. Considering that more than 70% of a child's waking time is spent at home and outside of school (Michigan Department of Education, 2001) and the profound influence of the family on children's learning (Rieber & Robinson, 2004), parental help will increase the motivation to learn in children (Muda'im and Shanie, 2023).

Considering that the child's early learning occurs through interaction with the family (Tekin, 2008) and peers and ultimately leads to learning and change in them (Akbari, 2021), if children can receive help from their parents in learning and practicing, due to the participation of parents, a more suitable learning environment will be created, which will increase their motivation to learn. However, the effective participation of parents in language learning is constructive when the child is really trying to learn a foreign language (Ma Xiaoyi, 2017). Various studies (Đurišić and Bunijejac, 2017; Erdener and Knoeppel, 2018; Shim, 2013; Jones 2022; Shao & Kang, 2022) confirm

the effectiveness of parents' engagement in the learning process, Although Forey et al. (2016) argued that there was not much information on parent engagement and the way they support foreign language learning in children. However, Nutbrown, Hannon, and Morgan (2005) stated that parents have four important roles in their child's language learning, including creating opportunities for learning, recognizing the child, interacting with the child, and modeling. Epstein (2010) proposed six types of interactions that can increase the influence of family and school on children's learning. According to Fishel & Ramirez (2005), Cheung and Pomerantz (2012) and Haryanto (2024), parents' engagement in their children's education is important in promoting their academic and social success.

Parental engagement in children's learning is defined in different ways. Ireland (2014) considers parental involvement as the extent of their engagement in their child's education and life.

Vygotsky's theory of the zone of proximal development (1978), like the discourse and definitions presented above, clearly emphasizes the importance of the role of parents' engagement in the development of children's learning. However, parents must have sufficient language skills to interact with their children and help them, and be interested in involving in their learning and know how to engage in learning so that they can play an active role in their children's foreign language learning.

This research was conducted with the purpose of answering the following research questions:

1. How does teaching parents how to engage affect their involvement in their children's English learning?

2. What is the relationship between parents' engagement and their children's success in learning English?

3. What is the relationship between teaching English to parents and also teaching participation in children's English language learning and their children's activities in the three experimental and control groups, and which variable has the most effect on their children's learning?

4. What kind of relationship exists between the measures taken by students and parents and the level of learning English in the three experimental and control groups?

. 2. Review of the related literature

It seems that Vygotsky's learning theory has become one of the most critical and popular theoretical frameworks for studies on parent-child interaction in the learning process (Kucirkova, Sheehy & Messer, 2015). In his famous theory, Vygotsky emphasizes the child's interaction and communication with an adult or capable peer, and also believes that social and cultural factors affect children's development and learning. According to Vygotsky, every child has a zone of proximal development (ZPD). This zone is the boundary between what a child can learn on his own and what he can learn with the help and support of an adult or guide (Vygotsky, 1978). Such interaction can lead to higher level thinking skills in the child (Lawton, 2017). However, according to Karpov (2003), Vygotsky was not able to provide adequate empirical evidence for these claims. At the same time, he did not pay

attention to the individual differences between children (Bodrova, Leong, 2022). The present research tries to investigate the role of teaching effective engagement and language skills to parents.

Vygotsky's zone of proximal development and other perspectives presented above indicate the importance of parents' engagement in their children's learning. However, the little familiarity of Iranian parents with the English language has hindered their proper engagement in their children's English learning. Kavanagh and Hickey (2013) considered their unfamiliarity with the target language as one of the most important barriers to parents' engagement in foreign language learning. Brannon and Dauksas (2012) also stated that parents' language skills help them to support their children in various activities. Yusup & Mansora (2016) argued that educated parents who are learning English are more motivated to help their children.

Therefore, the current research tries to teach parents the English language and effective engagement in their children's learning with the help of Telegram social network and investigate the role of such training in children's learning. and thus investigate the role of Vygotsky's zone of proximal development in the second language learning.

3. Methods

A quasi-experimental procedure with a pretest-posttest design was implemented to identify the relationships of the intervention, parents' training for participation, by comparing treated groups (kids) to control groups. The purpose was to recognize the relationships among language teaching,

parents' training for participation, kids' activities, parents' involvement, and learning level in the three groups. Thus, a comparison was made between two groups of kids and a control group of kids that their parents received no training.

The Statistical Population comprises 60 Iranian children between 9 and 10 and their parents who were at a similar level of English language ability.

These 60 children were randomly divided into two experimental groups 1 and 2 and the control group. Experimental group 1 consisted of 20 children who learned English through face-to-face classes at the elementary level for one month and a total of fifteen sessions. At the same time, their parents were taught English through Telegram using educational videos and short texts.

Teaching language to parents was conducted in the form of teaching vocabulary and conversation at the elementary level for 50 hours. The parents of this group participated in a 6-hour workshop on how to engage in their children's learning, and they were given information about the importance of engagement, its types, and the necessary materials in this regard. The experimental group 2 included 20 children who learned English through face-to-face classes in the same order as experimental group 1. However, their parents only attended a six-hour workshop on how to engage in their children's learning and were not taught the English language. In the control group, children were taught the English language and their parents were not taught English and how to engage in their children's learning process. Parents in the experimental

groups were encouraged to be more active participants in their children's learning process. They were told that they could help their children in reading stories, doing exercises, memorizing words, reading English poems and watching animations. Before the start of the course, students were given a pre-test and at the end of the course, a post-test was conducted. An English language teaching course was used to measure children's learning on a scale from 0 to 0.99, and the reliability coefficients fell between 0.75 and 0.86 (Educational Testing Service, 2005). A set of questionnaires, called "PI-SHBScienceLAS" adopted from Karaçöp et al. (2016) were completed by participants before and after the course.

Questionnaire

Active Involvement of Parents: This questionnaire consisted of seven items and measured parents' involvement level in the learning process of kids. The related items are: "I allocate time to make studies with my child improving his/her English Language skills", "I am telling my child that I like to learn new things about English language", "I have enough knowledge to help my child with his/her assignment of English language", "I establish clear rules for my child to do his/her assignment at home", and "I enjoy helping my child with his/her assignment of English language lesson", "While helping my child with his/her assignment of English language lesson, I can make explanations by giving examples apart from the ones given in the book", and "By helping my child with his/her assignment of English language lesson I think that I make a difference in his/her school performance" ". This test was organized in a five-point Likert

scale (from 1, completely disagree to 5, completely agree). The reliability of the test was obtained by Cronbach's test ($\alpha = .75$).

Joint activities of parents and students:

This scale had five items. Parents were asked to identify activities they did with their children, including doing homework, memorizing words, reading stories, poetry, and watching animations.

The students' learning level was classified based on the post-test scores in a four-level scale, from 1 (poor) to 4 (excellent).

4. Findings

First question: How will parents' training affect their children's participation, actions, and learning levels?

Table number 1 shows the mean and standard deviation for some variables,

including students' learning, parents' participation, and joint activities of parents and students. Descriptive statistics show that the mean scores related to the students' level of skills and learning (3.70) and the parents' participation level (3.49) were higher in the first experimental group than the second group and the control group. In addition, in the first experimental group, the mean of activities including assignments (14.55), writings (52.75), reading stories (19.99), poetry (4.25), and animation comprehension (11.55) was more than the second experimental group and also the control group. Furthermore, the second experiment group had higher means in the three variables above than the control group.

Table 1. Descriptive Statistics

Variable		Dimension	Group	Mean	Std. Deviation	N
Learning level of kids		-	Experimental group 1	3.70	0.66	20
			Experimental group 2	2.70	0.47	20
			Control group	2.10	0.45	20
Parents participation		-	Experimental group 1	3.49	0.25	20
			Experimental group 2	2.50	0.20	20
			Control group	1.24	0.23	20
Joint activities of parents and students		Homework	Experimental group 1	14.55	0.60	20
			Experimental group 2	13.60	1.19	20
			Control group	11.20	1.47	20
		Word	Experimental group 1	52.75	2.15	20
			Experimental group 2	43.85	3.34	20
			Control group	21.00	5.74	20
		Reading the story	Experimental group 1	19.90	1.29	20
			Experimental group 2	18.60	1.64	20
			Control group	8.90	1.77	20
		Poem	Experimental group 1	4.25	0.55	20
			Experimental group 2	2.75	0.44	20
			Control group	0.90	0.64	20
	Animation	Experimental group 1	11.55	1.39	20	
		Experimental group 2	8.60	2.35	20	

			Control group	2.65	0.49	20
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that it is expected to increase parents' participation, actions, and learning level students increase. Before applying the MANOVA test, the test assumptions were examined by Box¹, Levene², Pillai's Trace³, Wilks' Lambda⁴, Hotelling's Trace⁵, and Roy's Largest Root. The box test was used for three variables to examine the equality of the variance-covariance matrix. The results of the box test are shown in the table below. Table 2 shows the level of significance ($p = 0.05$), which indicates that the equality condition of the variance-covariance matrix is well observed ($P < 0.05$, $F = 2.069$).

Levene test was used to review equality of variances of learning level, skill learning of students, parents' participation, and joint actions of parents and students. The Levene test results have been represented below table. This table shows that the variances of these three variables are not equal in the three groups (1 and 2) and the control group. However, they are significantly distinctive ($P \leq 0.05$), which indicates the reliability of the following represented results.

Multivariate Analysis of Variance (MANOVA) was used in order to review training of parents concerning their participation, the amount it had affected their participation, actions, and learning level of students, and also by regarding specific training for parents (participatory and verbal) that is in complete contrast to the first and second experimental group and control group.

In this test, related variables should have a meaningful relationship. For example, the dependent variables of parents' participation, mutual actions (parents and students), and learning level of students have theoretically close relationships with each other by means

Table 2. Box's Test of Equality of Covariance Matrices

Box's M	141.067
F	2.069
df1	56
df2	9280.317
Sig.	.000

Table 3. Levene's Test of Equality of Error Variances

	F	df1	df2	Sig.
Learning level	2.019	2	57	.042
Parents participation	3.831	2	57	.031
Homework	14.084	2	57	.000
Word	2.731	2	57	.036
Reading the story	5.721	2	57	.018
Poem	2.335	2	57	.027

Animation	7.591	2	57	.001
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Results showed that among the three experimented groups, there was a meaningful distinction at least among one of the below variables: learning level, skill learning of students, parents' participation, and joint actions of parents and students ($F= 87.130$ $P \leq .001$).

In the below table, the results of the Wilks' Lambda test are represented. The Wilks' Lambda test statistics fluctuate between zero and one. Moreover, when approaching zero, it shows the more significant difference in the average of quantitative variables that, as approaching one, means no difference in means between groups.

Table 4. Multivariate Tests

Effect		Value	F	Hypothesis df	Error df	Sig.
Intercept	Wilks' Lambda	0.001	6470.744 ^b	7	51	0.000
Group		0.006	87.130 ^b	14	102	0.000

Therefore, there is a significant difference between the responses of the test and control groups for the three variables presented in the table. In other words, the level of learning and student skills, parental participation, and joint activities of parents and children in the experimental groups (1 and 2) and the control group are not similar. Furthermore, the variance of training for engagement is %61/7. The variance of students' level of learning and skills is 61/7 percent, parental participation 94.4 percent, homework, and activities 61.4 percent. The vocabulary conservation and learning activity variance is 92.1 percent, poetry 91 percent, and animation perception activities 84/9.

For Table 5. Tests of Between-Subjects Effects, refer to the Appendix1.

Based on this table, there are meaningful distinction between the three groups (1 and 2) and control groups in terms of:

- students' learning level
($F=975$ and $P \leq 0.05$),
- parental engagement rate
($F = 483.511$, $0P \leq 0.05$),
- classroom activities and homework
($F = 339.45$ and $P \leq 0.05$),
- word maintenance activity
($P \leq .001$, $F=330/114$)
- , reading story activity
($P \leq .001$, $F=289/243$)
- , Reading poetry
($P \leq .001$, $F=180/002$)
- and Animation perception activity
($P \leq .001$, $F=160/149$).

Now post hoc test is used for understanding if there are differences among these groups. In

For Table 6. Multiple Comparisons (LSD posthoc test), refer to appendix 1.

Second question. What kind of relationship is there among parents' participation and level of their children's success while learning a foreign language?

Pearson correlation analysis was used to examine the relationship between the two variables of parental participation and the success rate of children in learning foreign languages by considering these two variables are quantitative. According to this table, the Correlation between the two variables of parents' participation and the success rate of children's learning for the first group was equal to 0/519, for the second group was 0/391. For the third group, it was 0/488, which is This rate is significant concerning the error level of 5 to 10% ($P < 0.05$, $P < 0.1$).

Therefore, it can be concluded that there is a moderate correlation between the two variables of parental participation and the success level of their children's learning in all three groups. Furthermore, it shows a direct and positive relationship meaning that if the parental participation level increases, the success level of students in learning foreign language skills will also improve.

this study, an LSD¹ follow-up test was used to measure the issue mentioned above (see below table), which is neutral compared to the sample size of the various groups and has the prerequisite for equality of variances. If the difference between the two groups is more than the constant value of LSD, then there is a significant difference between the two groups.

It is important to note two points in performing this test: first, this test should be used when the value of the F is significant in the analysis table of the variance; the second number of groups should not be so many. Therefore, both of these preconditions are true in this research. Second, according to the results of the post hoc test between the experimental group 1 and 2, the experimental group No. 1 and the control group, and the experimental group 2 and the control group, variables' mean of the level of learning and student skills, parental participation, and joint activities of parents and children have significant differences ($P < 0.05$). Also, for the lower and upper bound mark, the mean of these three variables was higher for experimental group 1 than control group 2 and control group. In addition, both groups 1 and 2 had a greater mean than the control group.

Table 7. Pearsons' Correlations for the Groups

		Learning level for Group 1	Learning level for Group 2	Learning level for Group 3
Parent participation	Pearson Correlation	.519*	.391**	.488*
	Sig. (2-tailed)	.019	.089	.029
	N	20	20	20
*Correlation is significant at the 0.05 level, ** Correlation is significant at the 0.1 level				

¹ least significant difference

analysis is performed in the XLSTAT environment.

PLS model estimation

The present research model is as follows:

$$y_t = f(X_1, X_2, \dots, X_n)$$

Y, the dependent variables, and X, the explanatory variables, are the factors that influence this variable.

The dependent and explanatory variables in the present research are as follows:

explanatory variables:

X1 : language teaching

X2: teaching engagement to parents

Dependent variables:

X3: degree of parent involvement

Y1: foreign language learning level

Y2: child activities

Using the PLS, the number of variables in the two components can be categorized.

The following table and graph show the quality of the estimated PLS model based on the number of components selected. When the R² values for the dependent and independent variables of X and Y and the Q² values approach 1, the PLS model is estimated more accurately.

whenever the axes approach the center of the circle.

As observed, there is a strong positive correlation between the dependent variables (blue points) and the independent variables.

The following table shows the correlation matrix between explanatory variables of the model and each of the estimated components. As observed, there is a relatively strong correlation between the dependent variables of X3 (degree of parent involvement), Y1 (foreign language learning level), and Y2 (child

Question 3: What is the relationship between language teaching and teaching engagement to parents and child activities in the three groups? (what is the relationship between research variables, and which variable has the most influence on learning degree in children?)

The Partial Least Square (PLS) approach as the second generation of structural equation modeling methods has created new insights for behavioral sciences researchers. Through presenting the latent variable modeling approach, it was concluded that by calculating the measurement error in scales that reduce the estimated relationship, more exact estimates could be obtained on interaction effects.

Two models are examined in PLS:

- outer models
- inner models

The outer model is similar to measuring the confirmatory factor analysis (CFA), and the inner model is similar to path analysis in structural equation modeling. After the outer model test, the inner model indicates the relationship between latent variables in the research. The model research hypotheses can be investigated through the inner model. The PLS

Table 8. model efficacy indices with the two components

Index	Comp1	Comp2
Q ² cum	0.727	0.736
R ² Y cum	0.739	0.754
R ² X cum	0.749	1.000

A summary of the PLS model results in the first stage is presented in the following. This graph shows the Correlation between dependent variables and estimated independent variables. These variables are correlated less

Y1	0.593	-0.002
Y2	0.960	0.208

Based on the results in the following table, variables of X2 (teaching engagement to parents) and X1 (language teaching) have the highest impact on the estimated components, respectively.

In this table, the Upper and Lower bounds represent the acceptable domain of the calculated indices (confidence interval).

activities) and the first component, namely 0,972, 0,093, and 0,960, respectively.

Table 9. correlation matrix between model variables and each of the estimated components

Variable	t1	t2
X1-0	-0.840	0.542
X1-1	0.840	-0.542
X2-0	-0.890	-0.457
X2-1	0.890	0.457
X3	0.972	0.020

Table 10. variables most important in the first two components, respectively

Variable	VIP	Standard deviation	The lower bound(95 %)	Upper bound(95 %)	VIP	Standard deviation	The lower bound(95 %)	Upper bound(95 %)
X2-0	1.082	0.027	1.029	1.134	1.079	0.045	0.991	1.166
X2-1	1.082	0.027	1.029	1.134	1.079	0.045	0.991	1.166
X1-0	0.911	0.032	0.849	0.973	0.915	0.053	0.810	1.019
X1-1	0.911	0.032	0.849	0.973	0.915	0.053	0.810	1.019

teaching engagement to parents) have a significant influence on the dependent variables

Given the results delineated in the following table, it can be specified that all independent variables under study (language teaching and

Table 11. estimated coefficients for independent variables of the model and their standard deviations

Variable	Coefficient	Std. deviation	The lower bound (95%)	Upper bound (95%)
X1-0	-0.146	0.015	-0.177	-0.116
X1-1	0.146	0.015	0.116	0.177
X2-0	-0.401	0.014	-0.428	-0.375
X2-1	0.401	0.014	0.375	0.428

determine the influence of independent variables on the dependent variable. To do the

Regression model estimation

After recognizing essential variables influencing the degree of parent involvement, foreign language learning level, and child activities, regression models are specified to

considering variables available in each experiment for groups 1 and 2. A summary of the results is presented in the following table. As the regression analysis shows, there is a significant relationship between all variables in the conceptual model of the research ($P < 0.001$).

analyses related to the linear regressions, SAS² was utilized. Since three different groups (experimental1, experimental2, and control) were investigated in the present study, the influence of the independent variables on the dependent variables was calculated within several separate regression models while

Table 12. Results of regression analysis with different independent and dependent variables

Model	RMSE	R ²
$X3 = 1.872 + 1.614 (0.81^{**})X1$	0.57	0.65
$X3 = 1.243 + 1.750 (0.87^{**})X2$	0.76	0.47
$X3 = 1.243 + 0.985 (0.49^{**})X1 + 1.258 (0.63^{**})X2$	0.23	0.94
$Y2 = 66.025 + 36.975 (0.69^{**})X1$	18.38	0.48
$Y2 = 44.650 + 50.550 (0.95^{**})X2$	8.04	0.90
$Y2 = 19.060 + 24.608 (0.93^{**})X3$	9.67	0.86
$Y2 = 44.650 + 15.600 (0.29^{**})X1 + 42.750 (0.80^{**})X2$	4.80	0.97
$Y2 = 48.903 - 1.631 (0.06^{ns})X1 + 9.362 (0.69^{**})X3$	9.95	0.42
$Y2 = 31.213 + 31.622 (0.59^{**})X2 + 10.814 (0.41^{**})X3$	6.31	0.94
$Y2 = 51.678 + 21.168 (0.40^{**})X1 + 49.865 (0.94^{**})X2 - 5.656 (0.21^{*})X3$	4.67	0.97
$Y1 = 66.425 + 13.475 (0.50^{**})X1$	11.21	0.25
$Y1 = 61.450 + 14.200 (0.53^{**})X2$	11.00	0.28
$Y1 = 49.940 + 8.706 (0.65^{**})X3$	9.87	0.42
$Y1 = 47.756 + 0.296 (0.58^{**})Y2$	10.51	0.34
$Y1 = 61.450 + 8.500 (0.31^{*})X1 + 9.950 (0.37^{**})X2$	10.51	0.35
$Y1 = 48.903 - 1.631 (0.06^{ns})X1 + 9.362 (0.69^{**})X3$	9.95	0.42
$Y1 = 51.136 + 4.912 (0.18^{ns})X1 + 0.232 (0.46^{*})Y2$	10.46	0.36
$Y1 = 48.253 - 4.390 (0.16^{ns})X2 + 10.622 (0.79^{**})X3$	9.91	0.42
$Y1 = 42.287 - 7.494 (0.28^{ns})X2 + 0.429 (0.85^{*})Y2$	10.54	0.35
$Y1 = 50.93 - 9.987 (0.74^{**})X3 - 0.052 (0.10^{ns})Y2$	9.95	0.42
$Y1 = 40.168 - 8.363 (0.31^{ns})X1 - 11.598 (0.43^{ns})X2 + 17.128 (1.27^{**})X3$	9.85	0.44
$Y1 = 51.845 + 5.144 (0.19^{ns})X1 + 0.754 (0.03^{ns})X2 + 0.215 (0.42^{ns})Y2$	10.55	0.36
$Y1 = 46.113 - 6.558 (0.24^{ns})X2 + 9.880 (0.73^{**})X3 + 0.069 (0.14^{ns})Y2$	9.99	0.43
$Y1 = 49.842 - 2.148 (0.08^{ns})X1 + 11.206 (0.83^{*})X3 - 0.066 (0.13^{ns})Y2$	10.02	0.42

Notes: The numbers in parentheses are standardized regression coefficients; ^{ns} $P > 0.05$; * $P \leq 0.05$; ** $P \leq 0.01$

$Y1 = 16.045 - 18.244$		9.69	0.47
$(0.68^{*})X1 - 34.875$			
$(1.29^{*})X2 + 19.769$			
$(1.47^{**})X3 + 0.467$			
$(0.92^{ns})Y2$			

[†] Statistical Analysis System

teaching (Language teaching <0.001; $\beta=0.69$) had the most influence respectively.

It was interesting that the direct influence of language teaching ($\beta=0.69$) on child activities was less than its indirect influence of parent involvement degree (parent involvement) ($0.81 \times 0.93=0.75$). Compared to the direct influence, language teaching through the variable of parent involvement degree had more influence on child activities. Finally, parent involvement (parent involvement <0.001; $\beta=0.65$), child activities (activities<0.001; $\beta=0.58$), and language teaching (language teaching<0.001; $\beta=0.50$) had the most influence on the dependent variable of foreign language learning level respectively.

In order to recognize the most important variables influencing the learning level in students, standard regression coefficients related to the relationship between each pair of the research variables are presented in the following graph. Results showed that from among variables explaining the degree of parent involvement, the variable of teaching engagement to parents was the most effective ($P<0.001$; $\beta=0.87$), followed by the variable of language teaching ($P<0.001$; $\beta=0.81$). Moreover, the results showed that from among variables predicting child activities, teaching engagement to parents (engagement <0.001; $\beta=0.95$), parent involvement (parent involvement<0.001; $\beta=0.93$), language

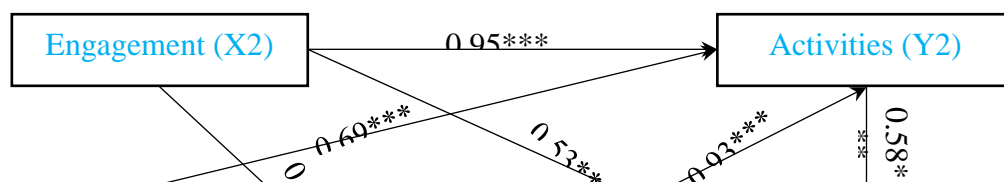


Figure 1. Standardized regression coefficients above arrows show direct effects from linear models (n=60, *** P <

error level (P-value <0.1). Therefore, it can be concluded that there is a weak correlation between students' and their parents' activities and learning in the first group. Furthermore, this is a direct and positive relationship, meaning that the higher the parents' and students' activities, the greater the students' success in learning foreign language skills. However, this relationship was not significant for the second experimental and control groups (P-value> 0.5).

number 4. What kind of relationship is there among students' and parents' actions with the level of foreign language learning in the three experimental groups?

Pearson correlation test was used to answer this question. According to the table below, the correlation coefficient between the two variables of parental engagement and the success rate of students learning for the first group was 0.384, which is significant at a 10%

Table 13. Pearsons' Correlations for the Groups

	Learning level for Group 1	Learning level for Group 2	Learning level for Group 3

Activities	Pearson Correlation	0.384	0.209	-0.250
	Sig. (2-tailed)	0.095	0.377	0.288
	N	20	20	20
* Correlation is significant at the 0.1 level				

In the following figures, the results of MANOVA and correlation analysis are summarized. The numbers on the line of chains are results of the MANOVA test, and the numbers on the full lines represent the results of the correlation test.

For better representation of this figure, the MANOVA was recalculated by computing the mean of activities shown in the figure.

For Table 14. Tests of Between-Subjects Effects refer to the Appendix 1.

Figurative display of the results

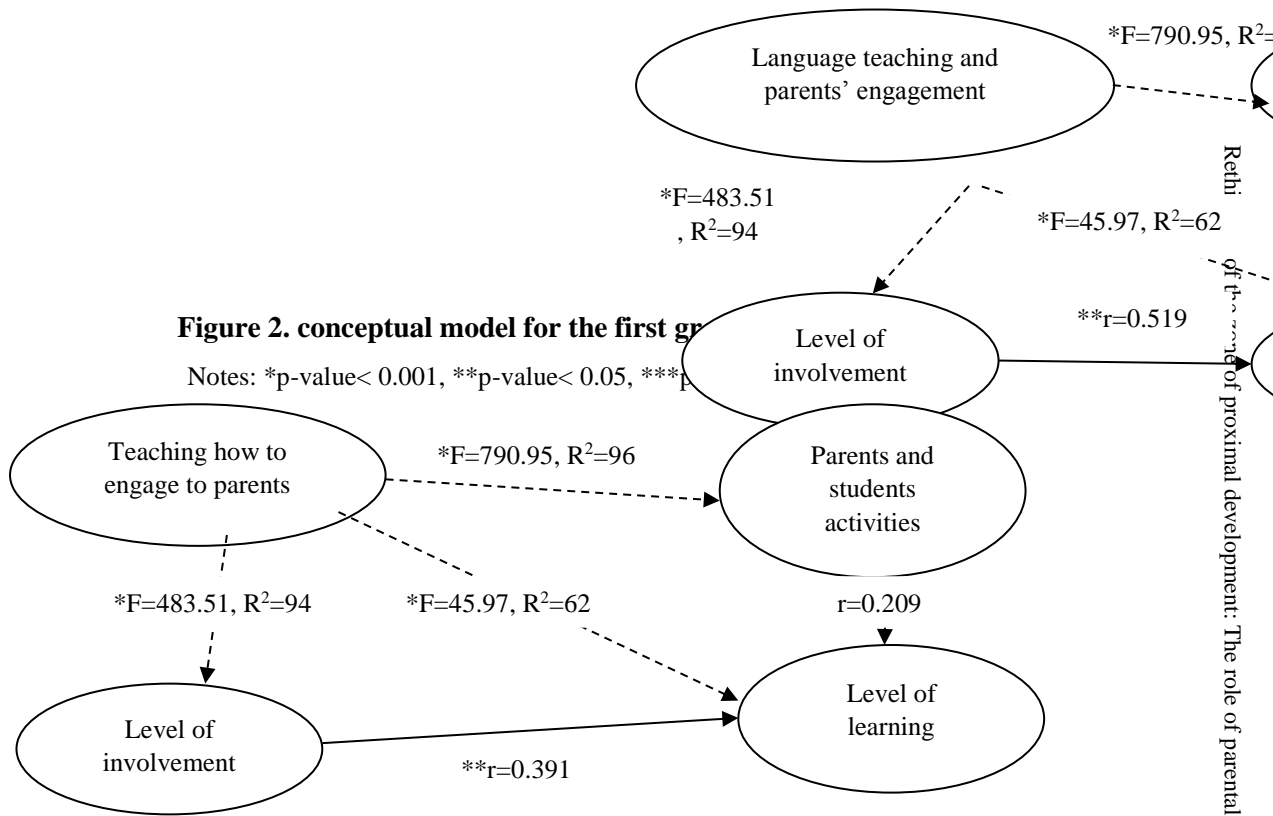
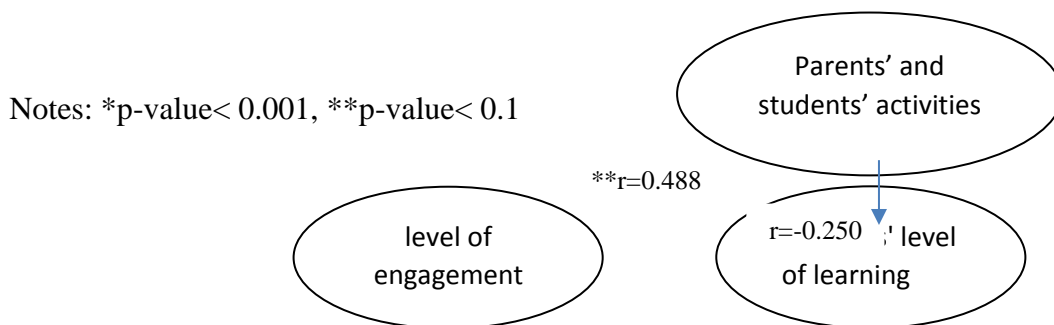


Figure 3. conceptual model for the second group



of the... of proximal development: The role of parental engagement in children's...



Figure 4. conceptual model for the control group

obtained higher mean scores for the three mentioned variables than the control group. The results showed that educating parents on how to involve is effective and influences their quality and quantity of involvement. Therefore, education of required skills to parents should not be ignored in the process of teaching and learning in children's field especially because social networks can be powerful and effective instruments for the relationship between parents and parent-teacher association members and provide the necessary education to parents. Many studies support the present research results, declaring that parent involvement results in more achievement in learning for students and influences their social and emotional advance and their communicative and interactive skills (Al-Mahrooqi, Denman, & Maamari, 2016). Erol Poyraz (2017) argued that it could be regarded as a critical educational source if parent involvement is effectively and correctly used in childhood education.

Đurišić and Bunijevac (2017) believed that schools should continuously encourage parents to involve and cooperate with schools. Erol Poyraz (2017) emphasized that teachers should guide parents on how to involve since he argued that parents do not exactly know how to involve. However, can it be practical to guide or encourage parents to engage when they do not have the necessary skills and knowledge concerning the subject matter? It seems that most of the studies on parents' engagement and

Notes: *p-value < 0.05

5. Discussion

The present research investigated the efficacy of parent involvement in children's learning and achievement in the English language, and it is emphasized that adult guidance in foreign language learning cannot necessarily play an influential role in children's zone of proximal development (ZPD). Rather, the adult in question must have characteristics to play a more effective role in the zone of proximal development. For this purpose, in this study, an attempt was made to investigate the effect of teaching active engagement and teaching English to parents on their children's English language learning level. The first research question is how parent education on the area of involvement can influence their involvement, activities, and the degree of learning in children. Results showed that there is a significant difference between experimental groups (1 and 2) and the control group in the degree of children learning and skill training, degree of involvement in parents, and the shared activities between parents and children. Moreover, the descriptive statistics analysis indicated that experimental group 1 achieved higher mean scores for the degree of learning and skill training in students, the degree of parents' involvement, and the shared activities between parents and children as compared to the experimental 2 groups and the control group. Furthermore, the experimental two

involvement vital. They did not, however, explained the exact representations of involvement.

The third research question investigated the relationship between variables in three groups and tried to find which variable had the most influence on learning in children. Results showed that parents' teaching engagement and linguistic skills had the most influence on their involvement, respectively. In addition, teaching engagement to parents had the most influence on child activity, followed by the variables of parent involvement and linguistic teaching skills. Finally, the results also showed that child activity and linguistic teaching skills influenced children's learning degree. It can be concluded from the results that parent involvement can be influenced by different factors such as linguistic skills and skills related to how to involve emphasized in the present research, a pointless dealt with in other studies. Nevertheless, Bubić & Tošić (2016) argued that parent involvement could be influenced by different factors, including the critical factor of understanding the importance of involvement in the learning process by parents. They also referred to interaction with parent-teacher association members.

However, Forey, Besser & Sampson (2016) showed that teaching engagement to parents was not effective in reading aloud. There was not a positive attitude in parents in this area. Furthermore, there was a cultural difference between the parents from Hong Kong and the western parents in getting involved. Therefore, the discourse of adult guidance seems to be very complicated and under the influence of

children's achievements in learning (Jafarov, 2015; LaRocque, Kleiman & Darling, 2011; Lee & Bowen, 2006 and Forey, Besser & Sampson, 2016) took into consideration the parents' income, occupation, socio-economic situation, education and attitude towards involvement. However, there is some research on the effectiveness of teaching how to involve to parents such as Cohen, Schünke, Vogel & Anders (2020), who investigated the influence of Support Program Chancenreich on the degree of parent's involvement and pre-school children's linguistic development. However, their research topic is very different from the current research topic. Their research findings showed that if parents are trained on involvement and interaction with children, the out-of-school environment and home can be enriched. As a result, better results can be attained regarding the children's development and skill level.

The second question showed a direct and positive relationship between the degree of parent involvement and the degree of learning achievement in children. In other words, the more parent involvement, the more outstanding the students' achievement in learning foreign language skills. According to Nord (1998), parent involvement plays an essential role in students' learning and achievement. Đurišić and Bunijevac (2017) stated that schools should try to enter parents into the educational process since it will promote achievement in students and increase satisfaction in parents and teachers and improve the school climate. Hosseinpour, Yazdani & Yarahmadi (2015) investigated the factors influential in Children's English Achievement Test scores and found parent

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different factors that differ from one country and culture to another.

6. Conclusion

Although Vygotsky's learning theory is the most essential and popular theoretical framework for studies on parent-child interaction in the learning process, some concepts are ambiguous such as adult guidance. It is not clarified what kind of parents can play more effective roles in this area, what characteristics the adults should have, or whether these characteristics should be the same in all discussions and concepts. The present research showed that in learning foreign languages, adults should have language skills, be interested in involvement in the learning process, and have learned how to involve. Therefore, characteristics should be specified for guiding adults in order to achieve Vygotsky's desired goals within the zone of proximal development.

The current research has focused on the influence of teaching engagement and teaching English language skills to parents and its effect on their children's learning, and has not focused on the teaching

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methodology in classrooms and its effect on the students' learning rate. In addition, the relationship between parents and parent-teacher association members and teachers can be investigated in future researches. In addition, more research can be conducted on a group of parents who are trained through face-to-face training, and more research can be done on children of different ages. In addition, a study can be conducted on subjects such as mathematics education. Researches can be conducted to extract parents' attitudes towards engagement and the necessity of acquiring knowledge to help children. In this study, the limitations included the small sample size (60 children) and conducting the experiment in a limited environment (Iranian Statistical Society), which may

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limit the generalizability of the results to other societies and cultures.

Appendix 1.

Table 5. Tests of Between-Subjects Effects

Dependent Variable	R Squared	Adjusted R Squared	Sum of Squares	df	Mean Square	F	Sig.
Learning level	.617	.604	26.133	2	13.067	45.975	.000
Parent participation	.944	.942	50.550	2	25.275	483.511	.000
Homework	.614	.600	119.233	2	59.617	45.339	.000
Word	.921	.918	10729.300	2	5364.650	330.114	.000
Reading the story	.910	.907	1445.200	2	722.600	289.243	.000
Poem	.867	.862	112.633	2	56.317	185.552	.000
Animation	.849	.844	822.100	2	411.050	160.149	.000

Table 6. Multiple Comparisons (LSD posthoc test)

Dependent Variable	(I) group	(J) group	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Learning level	Experimental group 1	Experimental group 2	1.00*	0.17	.000	0.66	1.34
		Control group	1.60*	0.17	.000	1.26	1.94
	Experimental group 2	Experimental group 1	-1.00*	0.17	.000	-1.33	-0.66
		Control group	.60*	0.17	.001	0.26	0.94
	Control group	Experimental group 1	-1.60*	0.17	.000	-1.94	-1.26
		experimental group 2	-.60*	0.17	.001	-0.94	-0.26
Parent participation	Experimental group 1	experimental group 2	.98*	0.07	.000	0.84	1.13

		Control group	2.24*	0.07	.000	2.10	2.39
	Experimental group 2	Experimental group 1	-.98*	0.07	.000	-1.13	-0.84
		Control group	1.25*	0.07	.000	1.11	1.40
	Control group	Experimental group 1	-2.24*	0.07	.000	-2.39	-2.10
		experimental group 2	-1.25*	0.07	.000	-1.40	-1.11
Homework	Experimental group 1	experimental group 2	.95*	0.36	.011	0.22	1.68
		Control group	3.35*	0.36	.000	2.62	4.08
	Experimental group 2	Experimental group 1	-9.500*	0.36	.011	-1.68	-0.22
		control group	2.40*	0.36	.000	1.67	3.13
	Control group	Experimental group 1	-3.35*	0.36	.000	-4.08	-2.62
		Experimental group 2	-2.40*	0.36	.000	-3.13	-1.67
Word	Experimental group 1	Experimental group 2	8.90*	1.27	.000	6.35	11.45
		control group	31.75*	1.27	.000	29.20	34.30
	Experimental group 2	Experimental group 1	-8.90*	1.27	.000	-11.45	-6.35
		control group	22.85*	1.27	.000	20.30	25.40
	Control group	Experimental group 1	-31.75*	1.27	.000	-34.30	-29.20
		Experimental group 2	-22.85*	1.27	.000	-25.40	-20.30
Reading the story	Experimental group 1	Experimental group 2	1.30*	0.50	.012	0.30	2.30
		Control group	11.00*	0.50	.000	10.00	12.00
	Experimental group 2	Experimental group 1	-1.30*	0.50	.012	-2.30	-0.30
		Control group	9.70*	0.50	.000	8.70	10.70

	Control group	Experimental group 1	-11.00*	0.50	.000	-12.00	-10.00
		Experimental group 2	-9.70*	0.50	.000	-10.70	-8.70
Poem	Experimental group 1	Experimental group 2	1.50*	0.17	.000	1.15	1.85
		Control group	3.35*	0.17	.000	3.00	3.70
	Experimental group 2	Experimental group 1	-1.50*	0.17	.000	-1.85	-1.15
		Control group	1.85*	0.17	.000	1.50	2.20
	Control group	Experimental group 1	-3.35*	0.17	.000	-3.70	-3.00
		Experimental group 2	-1.85*	0.17	.000	-2.20	-1.50
Animation	Experimental group 1	Experimental group 2	2.95*	0.51	.000	1.94	3.96
		Control group	8.90*	0.51	.000	7.89	9.91
	Experimental group 2	Experimental group 1	-2.95*	0.51	.000	-3.96	-1.94
		Control group	5.95*	0.51	.000	4.94	6.96
	Control group	Experimental group 1	-8.90*	0.51	.000	-9.91	-7.89
		Experimental group 2	-5.95*	0.51	.000	-6.96	-4.94
* the mean difference is significant at the 0.05 level							

Table 14. Tests of Between-Subjects Effects

Tests of Between-Subjects Effects						
Source	Dependent Variable	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	Learning level	26.133 ^a	2	13.067	45.975	.000
	Parent participation activities	50.550 ^b	2	25.275	483.511	.000
		36504.300 ^c	2	18252.150	790.947	.000
Intercept	Learning level	481.667	1	481.667	1694.753	.000
	Parent participation activities	348.348	1	348.348	6663.951	.000
		368323.350	1	368323.350	15961.099	.000
group	Learning level	26.133	2	13.067	45.975	.000
	Parent participation activities	50.550	2	25.275	483.511	.000
		36504.300	2	18252.150	790.947	.000
Error	Learning level	16.200	57	.284		

	Parent participation	2.980	57	.052		
	activities	1315.350	57	23.076		
Total	Learning level	524.000	60			
	Parent participation	401.878	60			
	activities	406143.000	60			
Corrected Total	Learning level	42.333	59			
	Parent participation	53.529	59			
	activities	37819.650	59			
a. R Squared = .617 (Adjusted R Squared = .604)						
b. R Squared = .944 (Adjusted R Squared = .942)						
c. R Squared = .965 (Adjusted R Squared = .964)						