The Effect of Verbalization on Young Learners' Speaking Performance: Collective versus Idiosyncratic Changes

Somayeh Akbari, MA
S.Akbari@azad.ac.ir
Faculty of Persian Literature and Foreign Languages, South Tehran Branch, Islamic Azad University, Tehran, Iran

Parisa Daftarifard, PhD (Corresponding Author)
Pdaftaryfard@azad.ac.ir

Faculty of Persian Literature and Foreign Languages, South Tehran Branch, Islamic Azad University, Tehran, Iran

Abstract

This study investigated the role of verbalization in the development of young learners' speaking ability and vocabulary knowledge at Cambridge English Movers level A1 through quasi experimental design. A total number of 60 participants between the ages of 5 and 6 years old were selected based on convenient sampling and had comparable scores on the listening section of the Mover Exam. Participants were divided into two experimental and control groups and were taught for ten sessions. The participants in the experimental group practiced verbalization strategy during the course of the study, whereas the young learners in the control group did not. The data, then, were subjected to both parametric and nonparametric analyses for collective results and Rasch model for idiosyncratic investigation. The results of Mann-Whitney U tests and Independent T-Test indicated there was no significant difference between experimental and control groups in their speaking performance. This showed that verbalization strategy had no significant effect on the language learners' speaking performance when their speaking proficiency was concerned collectively. However, the results of Rasch repeated measure analysis indicated some idiosyncratic growth in the experimental group.

Keywords: Rasch Model, Sociocultural Theory, Speaking performance, Verbalization, Young Learners

Introduction

Verbalization incorporates talking aloud, repetition, gestures, and the use of the first language. It is similar to young learners' private speech that refers to one's speaking to self when one is to solve a problem, remember something, answer a question, or use strategies to complete a task (Schunk, 1986). Verbalization usually happens when the child does an activity with partners or her/his own. It is believed that the goal of verbalization is to internalize the concepts and develop the cognitive abilities (Garcia, 2012, 2015). Speaking to oneself in either forms of overt or covert speech during solving difficult tasks is unavoidable (Schunk, 1986). Overt speech refers to verbalization which is a loud speech or whispering, whereas the covert speech indicates a silent or private speech (Bowels, 2010; Lidstone, Meins, & Fernyhough, 2009; Schunk, 1981, 1986; Swain, 2006). Verbalization, as Negueruela (2003) notes, is the combination of thinking and speaking as a tool to explain the intentional concepts. A child through verbalization might acquire new knowledge, control his or her manner, remember the strategy, or even plan the instruction for doing a task (Piaget, 1926; Vygotsky, 1978).

The concept of verbalization is rooted in Sociocultural Theory (SCT) perspective. In fact, the SCT hinges upon the idea that language acquisition and concept formation do not occur in a social vacuum; instead, they happen as the result of learners and artifact interaction (including context, peers, parents, and teachers) (Lantolf, 2000). This means that language functions as a medium in social and cultural activities (Lantolf & Poehner, 2011; Meier, 2007; Vygotsky, 1978). In the SCT, it is believed that verbalization can be the information, regulations, rules, or techniques that are remembered or any self-directed talk which addresses the obstacles we face, the answers or solutions to these obstacles, or the evaluation we make on the appropriateness of the solutions (Harris, 1982; Lantolf, 2000). It is argued that speech can function as a means of thought articulation (Berns, 1992; Swain, 2006; Vygotsky, 1987; Wells, 1999) which is called languaging (Swain, 2006). Verbalization or languaging helps the child speak out his thoughts, attract others' attentions to the intended message, as well as influence his or her cognitive development.

Furthermore, studies on the child's mind and language development have indicated that child's speech is as important as the role of his or her action. Some scholars (Cameron, 2001; Frazier, 2013) believe that language is a tool which can mediate the problem-solving process. Vygotsky (1987) explains that when the young learners confront a difficult problem in completing a task, they start talking to themselves to seek for a solution to the task. This means that language provides the young learners with a tool to complete tasks thereby developing their minds and thoughts (Cameron, 2001). In fact, language functions as a mediating tool in the form of talking aloud or later in the form of private speech (Cameron, 2001; Frazier, 2013; Lantolf, 2000; Vygotsky, 1987; Zuengler & Miller, 2006). From the SCT perspective, language is not used just to convey meaning but "as an agent in the making of meaning. Language is a process of making meaning and shaping knowledge and experience through languaging" (Swain, 2006, pp.96-98). Young learners' cognition emerges and develops in this way. As Vygotsky (1987) says "thought is not merely expressed in words; it comes into existence through them" (p.240).

Literature Review

One of the areas that verbalization is in the main focus of the attention is self-regulation which might affect the speech development. Verbalization might direct the young learners' attention to the intended part of the task and help them ignore the irrelevant parts (Schunk, 1981, 1984, 1986). It is believed that the connection between speaking and thinking results in

self-regulation and consequently mind development; this means that thoughts are reconstructed by speech due to the fact that verbalization enables speakers to regulate their thoughts. In other words, human beings develop their consciousness through the internalization of the conceptual meaning, as private speech is used to organize the meaning of the concepts as an intrapersonal communication (Negueruela & Lantolf, 2006; Vygotsky, 1978, 1987). Private speech helps the young learners internalize the concepts and enables them to control different functions such as problem-solving, acquiring and conceiving the value of the mental processes (Lantolf, 2000; Negueruela, 2003; Schunk, 1986; Vygotsky, 1978, 1987). This means that young learners use language to communicate, develop cognition, and control their behavior (Diaz, Winsler, & Atencio, 1992; Vygotsky, 1987).

Furthermore, Negueruela (2003) believes that overt speech can function as a mediating tool for a child to overcome the obstacles he faces while solving a problem. Negueruela and Lantolf (2006) explain that, based on the Vygotskian developmental process, mediation is an efficient factor for learners' development. And such developments usually occur within their "Zone of Proximal Development (ZPD)" (Vygotsky, 1978) which is referred to the distance between learners' assisted and unassisted performance in a given task. To put it differently, language is a tool, not only for communication but also for concept formation (Garcia, 2012, 2015). In this case, the child is alone and finds no help around, he quickly resorts to egocentric speech. In this way, his ability to understand the task will develop, and he regulates his speaking abilities (Schunk, 1986) or shape or form the concepts (Vygotsky, 1978).

What is obvious is that research has supported the important effects of verbalization on young learners' (Slobin, 1996) and adults' (Negueruela, 2003) concept formation. However, not much research has been done to investigate the effect of verbalization on young learners' speaking proficiency level. Elsewhere, Fernyhough and Meins (2009) found that young learners' private speech resulted in their self-regulation; however, to date no research investigated the role of verbalization on young learners' ability to regulate their spoken performance. To bridge the gap, this study focuses on the role of verbalization in the development of young learners' speaking ability as measured on at Cambridge English Movers rubrics (UCLES, 2005) both collectively and qualitatively through Rasch model (Daftarifard & Lange, 2009). To meet the purpose of the present study, the following questions are posited:

1. Does verbalization have significant effect on Iranian EFL young learners' speaking performance?
2. To what extent do verbalization results in consistent young learners' speaking developmental trends?

Method

This study took place within Rangin Kaman Institute, an Iranian private English kindergarten. The design of the present research was quasi experimental design as the method of sampling was based on the convenience sampling method.

Participants

Three groups of participants took part in the present research. The first group included 60 young learners aging between 5 and 6 years old. The young learners in this study had studied English in Rangin Kaman Institute. They were selected on the convenient sampling method. They met several criteria. The first criterion was that they were homogenized based on their listening using the listening part of Cambridge Mover exam. The second criterion was that they have studied English for about 18 months, four days a week and four hours a day. The participants were then placed into two groups of experimental (N = 28, 18 females, and 10 males) and control (N= 32, 15 females, and 17 males). The reason for the unequal participants in the groups was the nature of the class which should be kept intact. Based on the institute regulations, the number of young learners who were placed in each class must not exceed 15; therefore, each experimental and control group included 2 classes.

The second group included 4 English female teachers who were aware of the syllabus and were well familiar with Rangin Kaman syllabus for more than 3 years. They have been teaching for about 8 years. The teachers were between 23 and 30 years old. Two of them were at BA level majoring in translation and two of them were at MA level whose majors were translation and tourism respectively.

And the last group consisted of 2 raters who had a certificate for rating the British Council exams. They both held PhD in TEFL and were raters for more than three years. The first rater was given the recorded speaking of both the pretest and posttest exams. The second rater rated only 10 percent of episodes which were randomly selected. To avoid halo effect, the raters did not know which episode belonged to the pretest or the posttest. The inter-reliability alpha was estimated as 0.98.

Instruments

Three main instruments were used in present research: Oral test interview, verbalization, and the teaching material. The Interviews and oral tests were chosen from the Cambridge Young Learners English (YLE) Tests which were designed as language assessments for young learners in primary and junior high. All the Cambridge English exams were aligned with the Council of Europe's Common European Framework of Reference for Language (UCLES, 2005). The Mover exam is claimed to be at level A1.

The speaking parts of the Mover consist of 3 tasks including picture description-using short responses, the sequence of stories, and crossing the odd pictures out. The first task is related to picture description. The respondents are expected to say a few words about each picture in a sequence. In the second task, there are four pictures and the respondents should narrate it. The pictures are chronologically arranged. And in the last task, the young learners need to choose the picture which is different from the others and say why. The purpose of the tasks is to measure Young Learner's vocabulary, grammar, and discourse skills at the level of single utterance. The assessment scale consists of production and reception in which the latter deals with pronunciation and the former elicits listening, interaction, and language (word and phrases). Each of these skills was scaled into four levels from zero to 3 (See Table 1)

Table 1
Mover Speaking Assessment Scale

| | | Measures | | | |
	Scale	Pronunciation	appropriateness	Language (words & phrases) and	Listening and Interaction
Description	0	Non attendance/ no attempt to respond		-	-
	1	Speech is often difficult to understand	Most utterances are inappropriate	unarticulated	Understanding
	2	Speech is sometimes difficult to understand	Many utterances are appropriate	Many utterances are minimal, i.e., only one word, or a short sequence of not fully coherent words Responses are often delayed	Understands most of the instructions and questions, with frequent support.
	3	Speech can generally be understood with ease	Utterances are appropriately used	Responses are phrases or short sentences Responds promptly	Understands all the instructions and questions, with some support

Syllabus and materials for both control and experimental groups were the same. The content of the syllabus has been well-organized as a lesson plan and lasted for 10 one-hour sessions. In each session, teachers in both experimental and control group were given some flash cards along with some sentences to teach the participants based on the lesson plan. The topics in the syllabus included "*respect," "itsy bitsy spider (story)," "counting numbers and backward to 30", and "reading clock (half past, a quarter to, and a quarter past)"*. Table 2 illustrates the lesson plan overview.

As it is shown in Table 2, the designed syllabus included different materials such as story books, a clock model to teach time, and flash cards. All the flash cards and books used in the current study were designed in big colorful pictures. The pictures were all related to the concepts listed in the Table.

Table 2
The study's lesson plan

session	Vocabularies	Story, flash card(main material)
1	Respect(saying please and thank you, patiently waiting for your turn) Respect (listening with your ears and eyes, being quiet if others are talking,	Please help me, thank you for taking care of me, I am patiently waiting for my turn, I am listening with my eyes and ears, I am keeping quiet when somebody is talking. I treat my friends kindly, I am good to all people

	treating animals kindly, being kind to all people)	
2	Yell, grab, making fun of , disrespect, demanding for attention, interrupt	I'm not yelling at my friend, I am not grabbing food without permission, I am not making fun of animals ,
		I am not hurting animals, I am not demanding for attention. I am not interrupting
3	Itsy bitsy spider	book
4	Itsy bitsy spider	book
5	Itsy bitsy spider	book
6	Counting to 30 , counting down from 30 to zero	Full time (clock), the concept of time
7	30 minutes	Half an hour
8	Half past (time)	Difference between full time and half past
9	Quarter , Quarter past	Dividing objects into half and quarter/Difference between half and quarter
10	Revision	

Procedure

To meet the purposes of the present research, the following steps were taken. First, the young learners were homogenized using the Mover listening test and then were randomly divided into two groups of experimental and control. The results of the test were also considered as the young learners' pretest speaking performance. The participants' performances throughout the speaking test were recorded for the raters to score.

Participants in both groups received the same materials in a 10-session syllabus. The experimental group, however, practiced verbalization. The teachers in the experimental group received the lesson plan to study and presented a demo before starting the teaching sessions to make sure they understood the process of the research. Both experimental and control groups were taught by their own teachers, and the classes were supervised by the researcher through cameras. The current study included 10 planned sessions and each session lasted an hour to cover the selected materials.

Young learners in both experimental and control groups were given several flash cards and a story book. They were expected to learn all the materials included in the lesson plan by the end of the 10th session of the class. Before asking candidates to tell the story, the examiner says, '*Look at the pictures first.*' The examiners should advise the candidates to look at each picture in turn to get a general idea of the story before they start to speak; they were expected to say a few words about each picture in a meaningful sequence rather than telling a full story about the pictures. The grammatical structures the candidates needed most frequently in this task were as follows:

There is/are
The present tense of the verbs be and have (got)
The modals can/can't and must/mustn't
The present continuous tense of some action verbs (for example, play, read, look at, write, laugh, go).

They were expected to say things like "*The woman's talking*" and "*The boy's in the park*". The candidates were expected to describe simple feelings, for example, "*The boy is/isn't*

happy". Furthermore, they were expected to give simple reasons for choosing a picture as the different one in the third part of the speaking test. There may be many different ways of expressing the same difference. Candidates might also find an alternative difference to the one intended.

To start with the research, Schunk's (1984) strategy questions were followed. In the first three sessions, teachers introduced the strategy questions at the beginning of the sessions, including: "(1) what do I have to do? (2) I must tell what the picture says (3) how will I do it? (4) I'll look at each picture carefully (5) then try to remember the answer". Participants in the experimental group were to repeat aloud each strategy after their teachers. The next step after repeating the strategy questions was teaching the material in the syllabus. Each session, the syllabus contained a few vocabularies in different concepts such as:

Respect
- *I do not interrupt adults while speaking*
- *I ask permission when using your friend's pencil*
- *I say hello and goodbye thank you and please*
- *I am patiently waiting for my turn*
- *I am listening with my eyes and ears,*
- *I am keeping quiet when somebody is talking*
- *I treat my friends kindly*

Next, the teacher asked them to use those strategy questions to answer her questions related to the lessons that were taught at the end of each session. The verbalization sessions were all recorded. There were some problems during the sessions such as the young learners resisted cooperating whenever they felt bored. To solve this problem, the young learners were given some small presents, stickers, and lollipops to keep on going with the study processes. In the last step, all the participants in both experimental and control groups had been taken the Mover speaking test as the post-test. Finally, the recorded files of the pre-test and the post-test were delivered to the raters for scoring.

Results and Discussion

To answer the questions, the data were analyzed using SPSS and Winsteps. Except for pronunciation, Mann-Whitney U test was used for the other five measures (interaction, appropriateness, extent, promptness and total scores) because required parametric assumptions were violated (skewness and kurtosis indices were above 2). The results showed that the experimental and control groups were homogenous before the study started. None of the measures were found to be significant in the pretest (total score's $U = 411$, $z = -.970$, $p = NS$; Interaction measure's $U = 444$, $z = -.591$, $P = NS$; $p = .555$, language appropriateness measure's $U = 372$, $z = -1.70$, $p = NS$; language extent measure's $U = 436$, $z = -1.10$, $p = NS$; and language promptness measure's $U = 456$, $z = -.328$, $p = NS$). Furthermore, the T-test that was run on pronunciation measure for the pretest turned out to be insignificant too ($t(60) = -.621$, $p = .537$).

Verbalization and young learners' speaking performance: Collective results

To answer the first question of the study, "does verbalization have significant effect on Iranian EFL young learners' speaking performance at the Mover Level?" the Mann-Whitney U test was run all measures but not the pronunciation scores. The results are shown in Table 3. The results of the Mann-Whitney U test indicated that there was no significant difference between young learners' different measures in both groups (Mdn = 8.5; Mdn = 8.5, U = 404, z = −1.06, p = .289). Thus, it can be concluded that the first null-hypothesis **was not rejected.**

Table 3
The Mann-Whitney U Test for ; Speaking Posttest of the Groups

	Group	N	Mean Rank	Sum of Ranks	Median	U	z	Df	P	
Total score	experimental	28	28.93	810.00	8.5	404	-1.06	1	.289	.134
	control	34	33.62	1143.00	8.5					
Interaction	experimental	28	30.16	844.5	3	438	-.749	1	.454	.095
	Control	34	32.60	1108.50	3	.5				
Extent	experimental	28	30.68	859.0	1	453	-.690	1	.490	.087
	Control	34	32.18	1094.00	1					
Approprite ness	experimental	28	30.61	857.0	1	451	-.412	1	.681	.052
	Control	34	32.24	1096.00	1					
promptnes s	experimental	28	30.25	847.0	3	441	-.747	1	.455	.094
	Control	34	32.53	1106.00	3					

Table 4
Independent-samples t-test; Pronunciation Posttest of the Groups

Group	N	Mean	Std. Deviation	Std. Error Mean	t-test	df	P
experimental	28	.80	.249	.047	-1.067	60	.290
Control	34	.87	.224	.038			

As were shown in Tables 3 and 4, verbalization strategy had no significant effect on young learners' speaking component of the Mover exam. This was not surprising, though as language proficiency might not change very easily within one month. This finding is aligned with studies of Denny and Turner (1979), Schunk (1981), and Schunk (1985). According to Schunk (1985), due to the participants' age in this study, they may have comprehended what the teachers said without fully understanding how to apply verbalization.

As it is claimed by researchers (Bandura, 1986; Schunk 1981, 1984, 1986), verbalization directs the learners' mind to increase the understanding of the task and increases focus on problem solving strategies. But the present study showed that verbalization did not develop the participants' speaking proficiency level. Elsewhere, Schunk (1981) found, despite the influence of verbalization on the learners' attention toward the teaching materials, verbalization strategy might not facilitate comprehension of how to apply the strategies.

Verbalization and young learners' speaking performance: Rasch Repeated Measure

To answer the second question of this study, "to what extent do verbalization results in consistent young learners' speaking developmental trends?" the data was analyzed using Rasch Repeated Measure (Daftarifard, 2016). According to Chien (2008), there are three ways of conducting repeated measures in Rasch model: (a) "choose one point as definitive", (b) "select randomly across time points so that each person is selected only once", and (c) "anchor (fix) the item difficulties and Rasch-Andrich thresholds at their values from 2) and analyze all the data" (p. 1171). In the present research, the following Bond (2015 Personal communication), all items on the posttest were anchored at pretest items. To do so, the data for both experimental and control groups was analyzed using Rasch models.

As are shown in Tables 5 and 6, the Person reliability index was fairly acceptable for the five rating scores given to the young learners on their performance and was equal to 0.64 which indicated that the test was difficult for the young learners (person mean = 1.53 logits with S.E. of 0.32). It was not surprising as the test was the MOVER and the young learners were at the beginning of the MOVER course. Person infit and outfit indices were within the acceptable range (MNSQ <2 with ZSTD <1.96). The separation index of 2.04 logit indicated that the young learners were fairly well discriminated on the measured variables (Linacare, 2009).

To examine the functions of the items, the item misfit index was also checked. The items show excellent fitness if their ZSDT is less than or equal to 1.96, and the related point bi serial correlation is positive. As is shown in Table 6, all measure fit indices (including interaction, extent, appropriateness, pronunciation, and promptness) such as Infit and Outfit MNSQ along with its ZSTD were all within the acceptable range except for the second measure but as the biserial correlation was positive, the measure was not omitted.

Table 5
Summary of 62 Measured Person

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-------------------------------------------------------------------------------
|           TOTAL                           MODEL       INFIT       OUTFIT    |
|           SCORE     COUNT     MEASURE      S.E.     MNSQ   ZSTD  MNSQ   ZSTD |
|-----------------------------------------------------------------------------|
| MEAN      13.2       4.5       -3.35       1.39      .84   -.1    .63    .1 |
| P.SD       1.4        .0        2.54        .59      .38    .5    .30    .5 |
| S.SD       1.5        .0        2.56        .59      .38    .5    .30    .5 |
| MAX.      15.0       4.5         .93       2.81     1.83   1.1   1.17    .6 |
| MIN.      10.0       4.5       -8.44       1.08      .02  -1.1    .01  -1.1 |
|-----------------------------------------------------------------------------|
| REAL RMSE   1.53 TRUE SD   2.02  SEPARATION  1.32  PERSON RELIABILITY   .64 |
|MODEL RMSE   1.51 TRUE SD   2.04  SEPARATION  1.35  PERSON RELIABILITY   .65 |
| S.E. OF PERSON MEAN = .32                                                   |
-------------------------------------------------------------------------------
PERSON RAW SCORE-TO-MEASURE CORRELATION = .97
CRONBACH ALPHA (KR-20) PERSON RAW SCORE "TEST" RELIABILITY = .56  SEM = .96
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Table 6
Item Misfit Order Statistics

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-------------------------------------------------------------------------------
|ENTRY   TOTAL   TOTAL            MODEL|  INFIT  |  OUTFIT   |PTMEASUR-AL|EXACT MATCH|
|NUMBER  SCORE   COUNT   MEASURE  S.E. |MNSQ ZSTD|MNSQ  ZSTD|CORR.  EXP.| OBS%  EXP%|
|-------------------------------------+---------+----------+-----------+-----------+
|    2      96      62     6.62   .31|1.28  2.6| .95    .2|A .49   .56| 62.9  73.6|
|    1     348      62   -11.20   .31|1.04   .3| .84    .0|B .73   .77| 72.6  75.5|
|    4      90      62     7.20   .31| .98  -.2| .72   -.1|C .56   .55| 79.0  73.7|
|    3     118      62     2.47   .55| .73  -.3| .19   -.8|b .62   .60| 93.5  94.1|
|    5     342      62   -10.69   .28| .68 -1.9| .54   -.8|a .74   .68| 91.9  68.1|
|-------------------------------------+---------+----------+-----------+-----------+
| MEAN   182.2    62.0      .00   .36| .93   .1| .63   -.4|           | 80.8  77.2|
| P.SD   114.8      .0     7.87   .10| .23  1.5| .27    .4|           | 12.0   9.4|
-------------------------------------------------------------------------------
```
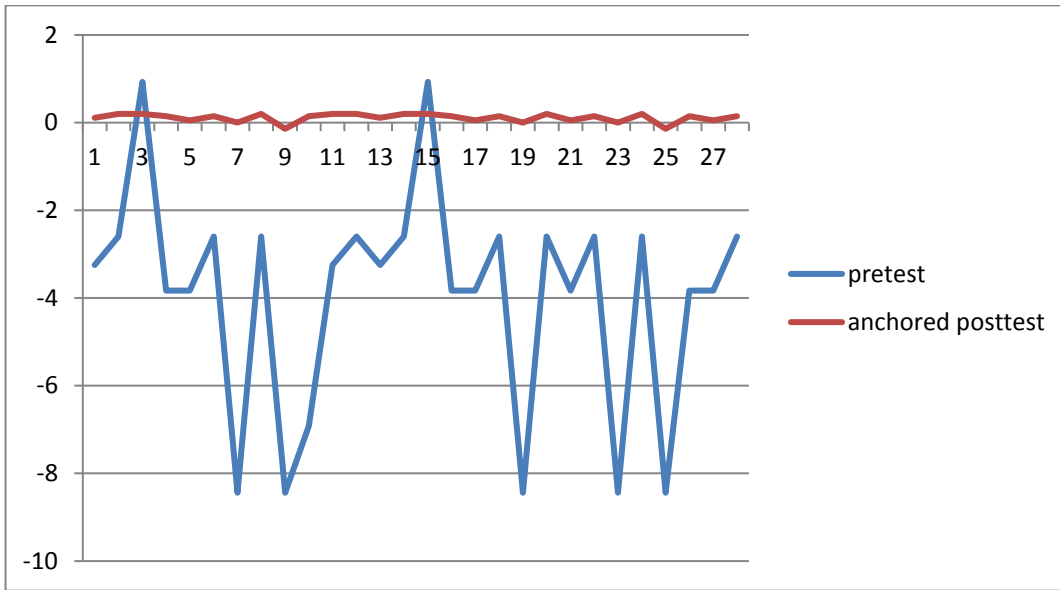

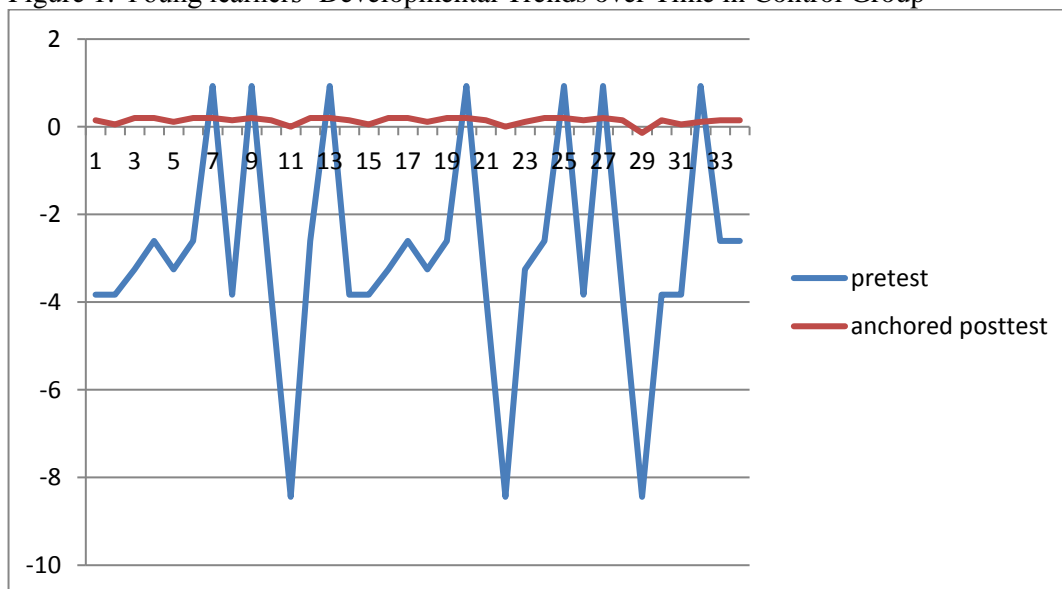Figure 1. Young learners' Developmental Trends over Time in Control Group

Figure 1. Young learners' Developmental Trends over Time in Experimental Group

Table 7.

Different Patterns of Young learners' Developmental Trends through Verbalization

students	pretest	anchored posttest	students	pretest	anchored posttest
7	-8.44	0	11	-3.25	0.2
9	-8.44	-0.14	13	-3.25	0.11
19	-8.44	0	2	-2.6	0.2
23	-8.44	0	6	-2.6	0.15
25	-8.44	-0.14	8	-2.6	0.2
10	-6.92	0.15	12	-2.6	0.2
4	-3.83	0.15	14	-2.6	0.2
5	-3.83	0.05	18	-2.6	0.15
16	-3.83	0.15	20	-2.6	0.2
17	-3.83	0.05	22	-2.6	0.15
21	-3.83	0.05	24	-2.6	0.2
26	-3.83	0.15	28	-2.6	0.15
27	-3.83	0.05	3	0.93	0.2
1	-3.25	0.11	15	0.93	0.2

Figures 1 and 2 showed the results of Rasch repeated measure. The results are presented graphically for the young learners' performances in the pretest and posttest in two experimental and control groups respectively. The data of the posttest (blue line) was anchored at the pretest (the red line) to ensure the comparability of the results. As is shown in both figures the learners' speaking ability levels varied between - 8 and + 0.5 logits. The control group seemed to perform the pretest qualitatively better although the pretest mean difference was not significant (pretest total score's U = 411, z = −.970, p = NS). However, the results of experimental group on the speaking posttest seem to be qualitatively better. The results indicated that verbalization caused idiosyncratic changes; that is, some of the individuals improved but others did not.

Table 7, also, demonstrates the differential idiosyncratic growth of individuals in the posttest. In table 7, the Rasch scores that anchored at the pretest were shown. The results indicated that similar individuals reacted to the verbalization differently. For instance, the young learners 9 and 25 grew less than young learners 7, 19, and 23. This is true about young learners 5, 17, and 27 (with 0.05 logit growth) when they are compared with young learners 4, 16, and 26 (with 0.15 logit growth). This is similar to what Daftarifard (2016) has found in her research on reading comprehension dynamic assessment. She found 7 different developmental patterns among the participants who attended the computerized dynamic session. In the present study, however, two patterns emerged. Some learners with the same pretest scores improved differently like cases 7, 9, 19, 23, and 25 whose scores were -8.44 in the pretest some of whom improved more (like participants 7, 19, and 23 with the posttest score of 0 logit) whereas the participants 9 and 25 have gained the score of -0.14. Another observed pattern belonged to those whose score were different in the pretest like the participants 3, 15, 24 whose posttest scores after verbalization turned out to be the same. The reason for having less number of patterns in the present research might be that the test was not given to the young

learners dynamically or the number of measures were limited. In Daftarifard's study, the students were measured on 30 items five times.

Some Qualitative Evidence from Verbalization

To investigate the qualitative differences more profoundly, three cases of verbalization content were scrutinized. These cases were selected because their pretest scores were -3.83 logits which was not high or low comparing to the pretest scores of other cases and they gained 0.15 logit score. The results presented in Table 7 indicated that these young learners had higher rank comparing to other young learners with similar logit score in the pretest (for instance young learners 5, 17, 21, 27 with gained logit score of 0.05). Table 8 shows that these young learners' verbalization of time and numbers improved after three successive sessions that have been spent on this topic.

Table 8
Verbalization Content Developmental Trends: Three Cases

Name	Session 6	Session 7	Session 8
4	Clock: the small hand shows the minute, the big hand shows the hour. Teacher: what time is it? -what should I do? I look at the clock carefully and try to say. It is 3 o'clock, (teacher says think again, it's not true. Where is the small hand?) The big hand is in front of 6. It is 2 o'clock? (it is wrong, then teacher asks another student)	It is half past 7; I look at the clock, and see the big hand is….. (he answered carefully, but was not able to explain how he told the time)	What time is it: its half past nine, because the big hand is in front of 6. What time is it: it's nine o'clock? First I look at the clock, and I see the big hand is on 12. (he answered the questions correctly). What time is it? It's a quarter to 2. How did you tell it? Because the big hand is on number
16	Number and counting down: she did not answer any question individually at all. What time is it? It is nine o'clock, (again look at the clock) it is 8 o'clock. Because the big hand is here. What time is it? I have to look at the clock to say time. It is ten o'clock. No eleven o'clock. It's eight o'clock. (all answers are wrong).	I must see the clock and see how teachers' hand is moving. It is five o'clock because the big hand is on 12. What do I have to do? I should look at the clock, and say time. Half past eleven. It is half past eleven It is half past three. (she answered correctly)	it is four o'clock, no no, it is half past four o'clock. What time is it? It is 5 o'clock,(teacher: where is the big hand?) it is on 9 o'clock (so what time is it?) it is a ..a quarter past 5(again the answer is wrong). Teacher: try again later What time is it? I should look at the clock and say the time, the big hand is on 9 the small hand is on 7 , it is a quarter to 8.

| 26 | What time is it? It is 7 o'clock.

What time is it? It is ……(he cannot, because both hands are on 12 and he cannot recognize)

Try again: it is 1 o'clock | I have to look at the clock carefully and think. When the big hand is on 6 ,it is half . (so what time is it?) it is half past 9 o'clock. | What time is it:
It is 3 o'clock.
The big hand is on 9 it is half past 4. (think again). Big hand is on 9 and small hand is on 4, it is a quarter to 5. |

Conclusion

Verbalization has been mostly discussed to be useful for concept formation (Negueruela 2003; Schunk, 1986; Winsler, Diaz, Atencio, McCarthy & Chabay, 2000; Winsler & Naglieri, 2003). Schunk (1986) believes that verbalization has a positive effect on the young learners' self-regulation thereby helping their concept formation and learning. Negueruela (2003) argues that young learners learn how to internalize and conceptualize concepts using language as a tool. Elsewhere, Swain (2000) explains the purposeful use of speech to internalize the concepts and develop self-reasoning and self-regulation. Therefore, literature is replete with many claims and pieces of evidence that verbalization plays a crucial role in increasing paying attention to problems, facilitating the activities, and solving problems during preschool years (Winsler, Diaz, Atencio, McCarthy & Chabay, 2000). In other words, as Winsler and Naglieri (2003) state young learners, through verbalization, can internalize functional concepts and boost the movement process from socially-mediated acquisition to self-regulated cognition. However, the present research does not support the idea that verbalization can improve young learners' speaking language proficiency levels collectively, although many individuals showed idiosyncratic changes in their speaking performance (See figure 1 and 2).

The findings of the current study reveal that verbalization strategy had no benefits for young learners. To Schunk (1986), there might be some other elements that could affect the role of verbalization on young language learners' performance. There can be different factors such as the participants' age or use of strategies that might have affected the results. The results of the current study are aligned with some scholars' works (Denney & Turner, 1979; Schunk, 1981; Schunk, 1985) which supports the idea that verbalization may not result in young learners' language performance improvement.

The third reason we did not come up with significant results in the experimental group might be the fact that the content of the syllabus designed for 10 sessions of verbalization in the current study differed from the tasks and content of the proficiency tests which were given for both the pretest and the posttest. It means that the participants were not trained for the proficiency tasks which were measured by the raters. That is, the results might have been different if the speaking achievement tests were used instead of language proficiency speaking test.

Apparently, the evidence in the experimental group showed that verbalization influenced learning the clock and counting numbers which were designed for the sixth, seventh, eighth, and ninth session of the experimental group. Young learners in the experimental group learnt these tasks faster comparing to the control group due to the fact that the verbalization strategy directed their attention to these concepts and they took some steps to consider counting and telling the time. This evidence is in line with the findings of Ericson and Simon's (1984) study to investigate the role of verbalization in mathematical operation and calculation. They

found that verbalization affected the tasks that were demanding for working memory (like math problems).

The present research showed that using verbalization within 10 successive sessions could not change young learners' speaking proficiency levels collectively but qualitatively. Some young learners improved more than other young learners with the same logit scores on the MOVER speaking measure. Vygotsky explained such differences through the concept of the Zone of Proximal Development (the ZPD). Although there was no mean difference between control and experimental group, the result of figures 1 and 2 demonstrated that young learners in experimental group improved more comparing to control group. It seems that verbalization is not one-size-fits-all strategy. It appears that in some cases verbalization can be a source of learning, but in others cannot (Bowel, 2010). What is evident from this study and other similar studies is that verbalization seems to help students internalize the self-regulation strategies that the learners engage in when doing a task (Cohen, 1998).

The present research attempts to reveal the possible effect of verbalization on young learners' speaking performance assessed based on the Mover's rubrics. The results showed that verbalization affects young learners idiosyncratically; some young learners improved considerably and some did not. However, there are crucial points remained unanswered in this endeavor. Some of them are addressed here in this section. For instance, Gal'perin (1969) used verbalization (in a collaborative form) along with teachers' oral explanation and modeling. Many scholars (Negueruela, 2003; Serrano-Lopez & Poehner, 2008; Lee, 2012; Kao, 2014; Fogal, 2015; Lavasani, 2016; Lavasani & Birjandi, 2015) used verbalization in combination with one of the aforementioned strategies to teach and practice concepts. For instance, Lavasani and Birjandi found that the group with collaborative verbalization in L1 enjoyed the privilege of using verbalization over those who were only exposed to teacher's oral explanation and materialized objects.

The present research did not scrutinize the effect of verbalization on young learners' concept formation too. In another study, the effect of verbalization can be examined on the nature of young learners' conceptual developments. Another research might focus on the effect of verbalization on young learners' achievement scores. In the present research, as was mentioned earlier, the content of test was different from that of verbalization. Lavasani (2016) has investigated the role of verbalization in Iranian listening comprehension achievements. It is difficult to change Language proficiency within 10 sessions. Therefore, it is worth assessing the influence of verbalization on young learners' speaking achievement.

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