Developing EFL Learners' Oral Proficiency through Animation-based Instruction of English Formulaic Sequences

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Abstract
The current pretest-posttest quasi-experimental study attempts, firstly, to probe the effects of teaching formulaic sequences (FSs) on the second or foreign language (L2) learners' oral proficiency improvement and secondly, to examine whether teaching FSs through different resources (i.e. animation vs. text-based readings) have any differentially influential effects in augmenting L2 learners' oral proficiency or not. To this end, a cohort of 60 young L2 learners of an immersion program school in the southwest of Iran was randomly divided into three groups, two experimental and one control. During 24 instructional sessions, one experimental group received the FSs instruction through animation, and the second experimental group noticed FSs through text-based readings. The control group was taught using the school mainstream L2 textbooks without any focus on FSs. The results indicated that both FSs groups outperformed the control group. Moreover, animation-based instruction significantly increased the efficacy of FSs instruction, pointing to the issue that educational technology is a better strategy for teaching FSs rather than the traditional way of reading.

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Oral proficiency is one of the most essential aspects of foreign language (FL) learning for developing the communicative competence of L2 learners. Indeed, oral language is the main route of learners' communication and the central part of their L2 learning process. Research also suggests that proficient language users have the potential for applying their linguistic knowledge to a variety of settings or contexts for functional and accurate communication in the target language (Alsagoff, 2018; Omaggio, 1986). Students' effective communication, thus can influence their exchange of information, process and interpretation of knowledge, and critical evaluation of their language repertoire. As such, it is perhaps no surprise that with a high level of oral proficiency, L2 learners can improve other linguistic skills (Palmér, 2010). It is thought, therefore, that one’s level of oral proficiency indicates how well one can communicate in English at a given moment (Singh, 2015).

It is expected that proficient speakers of every language have mastery of the idiosyncratic phrasal knowledge or FSs of their society at some level to handle various discourses of their speech communities for decreasing oral breakdowns of natural communication. From a psycholinguistic perspective, native-like speech is not established unless the language user can demonstrate dominance in a vast repertoire of FSs. With regard to this, different studies have declared that the use of FSs is highly influential for improving speaking; thus, FSs implementation among EFL learners can help to better establish native-like speech (e.g., Boers, Eyckmans, Kappel, Stengers, & Demecheleer, 2006).

The notion of FSs, which includes not only discrete words of the language but also a stock of words stored in memory, is considered to have a vital role in language teaching and learning. Some research works have given various labels to FSs, including formulas (Ellis, 1994), gambits (Keller, 1979), formulaic speech (Wong-Fillmore, 1976), and lexical
phrases (Nattinger & DeCarrico, 1992). The most comprehensive definition of FSs is proposed by Wray (2002). She believes that FS is “a sequence, continuous or discontinuous, of words or other elements, which is prefabricated: That is, stored and retrieved as a whole from memory at the time of use, rather than being subject to generation or analysis by the language grammar” (Wray, 2002, p. 9).

Despite the great endeavors for injecting FSs into language teaching, some studies have revealed that there are a few established strategies for teaching FSs (Jones & Haywood, 2004). Overall, however, the teaching of formulaic speech is not focused on in FL classes; therefore, English as a foreign language (EFL) students are weak in the use of FSs (Chan & Liou, 2005). This issue demands the interface between language teaching strategies and technology for introducing new trends to EFL educational system. The treatment of the current research was designed to examine the role of computerized resources (animation) for teaching FSs to young (between the ages of 10 -12) Iranian L2 learners in comparison with the traditional non-computerized way of text-based readings. Finally, their oral production was assessed with respect to their speaking proficiency. In this regard, this research examines if the animation can be used as a facilitating device for FSs instruction with the purpose of oral proficiency enhancement in young EFL learners.

Review of Literature

The focus of a Lexical Approach is on improving learners' proficiency with lexis, or formulaic sequences (FSs) (Moudraia, 2001). The notion of FSs refers not only to isolated vocabulary items but also to combinations of words or building blocks of language which are wholly stored and retrieved from mental lexicons of language learners as unanalyzed chunks at the time of use without further need of generation or analysis by the language grammar (Lewis, 1993; Wray, 2002). In fact, lexis-based instruction relies on learners’ performance rather than competence,
focusing on sequences of lexis instruction with the possibility of FSs contribution to speech proficiency development (Wray, 2002). In a parallel route, recent progress in the lexis-based view of language with the kernel concept of meaning-making in communication denotes a radical departure from traditional grammar-based views (Lewis, 1993). Although the generative nature of language grammar allows the production of an unlimited set of expressions, the output of native speakers includes specific chunks in which they have disregarded many grammatical utterances that would seem to be equally convenient to produce the same concepts (Lewis, 1997; Wray, 2002). In addition, within-corpus linguistics, it has received particular attention that natural language contains many prefabricated chunks or FSs in various linguistic settings as they are frequently used in daily speech of native speakers (Ellis, 1996, 2008; Kuiper, 2009; Pawley & Syder, 1983; Vihman, 1982; Wray, 2002). Hence, learners' oral proficiency can be enhanced by repetition of formulas in a run, use of multiple formulas to extend a run of speech, reliance on one formula or filler repeatedly, usage of self-talk and fillers, and exploitation of formulas as rhetorical devices (Wood, 2010).

The Lexical Approach proposed by Lewis (1993, 1997, 2000) has challenged the traditional views of language that consider language as a system of discrete items to be learned independently. These trends in conventional views of language training system adhere to learning many isolated words, especially nouns, to name the objects, and then use the grammatical frames to talk about those objects. In spite of such structural drillings, learners were not prepared to express themselves in L2 contexts, and thus they were unable to benefit from linguistic novelty and creativity in new discourses (Lewis, 1997, 2000). The primary consensus of the Lexical Approach is meaning-based communication in FL classes instead of focusing only on mere grammar. Therefore, better language learning can be achieved when the learners use components of language to send and receive information with the aim of meaningful communication (Lewis,
In this regard, Lewis (1993) contends that “language consists of grammaticalized lexis, not lexicalized grammar” (p. 89). He argues that mere attention to sentence grammar only affords the rules for language analysis, and it is not sufficient to provide a rich repertoire of ready-to-use lexicons for applying in different types of situations. As he declares, once learners memorize FSs, they can consequently recall those memorized chunks and map them onto future novel language contexts. Further, underlying assumptions of the Lexical Approach emphasized L1 and L2 resemblance as it declares that FSs or lexical phrases play a crucial role in the process of L2 learning (Hunston & Francis, 2000; Tomasello, 2000). Because of the similarities between linguistic and learning mechanisms of L1 and L2, exposure to highly frequent chunks or FSs of L2 is likely to affect L2 learners to master FL (as L1 mastery is established by exposure to L1 prefabricated chunks).

Declarations about the Noticing Hypothesis proposed by Schmidt (1990) flesh out the importance of this psychological construct (i.e., the Noticing Hypothesis) for successful language learning (Lynch, 2001; Schmidt, 2010). Likewise, Lewis (1993) believes that noticing is at the heart of the Lexical Approach. He declares that a “central element of language teaching is raising students' awareness of, and developing their ability to 'chunk' language successfully” (p. 6). The notion of noticing denotes that the only way for turning the input into the intake is attending or noticing (Schmidt 1990). Concerning language proficiency improvement of advanced L2 speakers through noticing instructional method, Boers et al. (2006) found that FSs instruction was effective for improving learners' fluency and proliferating range of FSs usage. Similarly, Jones and Haywood (2004) conducted a study on an English for academic purposes course, which explored that after the students were exposed to awareness-raising activities, their use of formulaic language improved in the sense that they were able to integrate more appropriate formulaic speech into their essays.
Wray and Fitzpatrick (2008) investigated L2 learners' capacity to improve their drilling activities through memorizing target language FSs. They claimed that the effective use of memorization could positively affect both beginners and more advanced learners. Their results showed that using memorized sentences for filling expected conversation slots is like a driving force to seem like a native speaker. To this end, they discovered that the use of FSs promotes fluency, reduces the panic of production without preparation, increases confidence to be comprehended by others, and provides proper materials for various contexts. So far, it has been assumed that the holistic nature of FSs retrieval from memory can help young learners to be orally competent in the early stages of L2 learning without taking the trouble of grammatical rule analysis (Bakhshizadeh, Rahimi, & Rajaei, 2015).

Further studies on the role of focused instruction of FSs revealed that FSs not only assist in language acquisition since they help the learner to be fluent but also aid in internalizing grammatical rules (Perera, 2001). Additionally, explicit instruction of FSs fostered L2 learners’ subsequent L2 acquisition and enhanced their academic writing proficiency (AlHassan & Wood, 2015). According to Appel and Wood (2016), low-level learners rely more on FSs usage in their writing than high-level students who utilize more referential expressions. Further, the influence of intensive instruction of FSs among adult EFL learners was recently explored by Serrano, Stengers, and Housen (2015). They compared the L2 development of EFL adult learners at different proficiency levels. Their results revealed that the intermediate-level learners benefited the most from the intensive FSs-based instruction and outperformed the two other groups in L2 production. The students at the highest level of proficiency benefited the least from the intensive instruction on FSs. Furthermore, Taguchi (2008) probed L2 learners' speaking improvement in terms of speech complexity and fluency after they were noticed by L2 formulaicity. He found that the learners developed complex utterances by applying frequent use of FSs or semi-
fixed chunks, although they showed no improvement in their oral fluency features.

Nowadays, the interactive virtual world is interwoven with young people's lives. Therefore, the products of technology development can be adapted by the educational system, and teaching language can be better delivered by using technological capabilities and digital affordances, such as interactive whiteboards (IWB) and multimedia (e.g., animation). Further, computational linguistics or corpus technology should influence the syllabus content and sequence (Lewis, 1993; O’Keeffe, McCarthy, & Carter, 2007). Thereby, Hoogeven (1995) mentions that student experiences will be more fun, and learning will become an exciting activity by multimedia. In a parallel position, Dual Coding Theory proposed by Paivio (1986) recommends the use of visuals in instruction by asserting that learning and long-term retention in memory have inclined to a dual coding model that hypothesizes two independent codes for interrelating memory and learning: a verbal and a visual, one of them is activated by the words and the other one with the pictures. The retention of materials can be increased if the information is initially coded in two codes rather than one. Thus, presenting through visuals and verbal modes simultaneously can facilitate comprehension and memory formation (i.e., learning). To this aim, animation can help to merge multimedia into the language learning process for enhancing FL learning efficacy.

The psychological reason for using animation as an instrument of instruction may also be its benefit for participant integrative motivation arousal. Instrumental motivation is the situation where the purpose of language learning is the use of language as an instrument to get benefit from its learning. However, integrative-oriented motivation deals with learning the language just for integrating with that language and its culture (Gardner, 1985). The animation, however, can provide a rich source of intrinsic motivation as the learners get sufficient rewards from the activity itself (Schmidt, Boraie, & Kassabgy, 1996).
According to Rieber's (1989) taxonomy for animation in instructional design, the animation is not just a strategy of teaching classroom presentation; it can also be a source filling various roles, such as the examples below:

1. Presentation strategy: it can be used for direct instruction of language items, such as visualizing concepts and affording text for the examples;
2. Conceptualization: without representing new information, animation can remind the learned items of language;
3. Usage of a few attention-getting symbols;
4. A device for motivation;
5. As an attractive visual phenomenon;

The advantages of animation usage for pedagogical purposes are not limited to factors, as mentioned above. Rieber's (1990) study revealed that the use of animation enhances the memory of peripheral information.

In contrast with the traditional teaching strategies focused on explicit instruction, the learner takes the benefits from incidental exposure to language input in animation-based instruction. Despite the efforts of teaching FSs intentionally, the learners can acquire some peripheral proficiency, such as native-like accent, pronunciation, and some others (Bisson, van Heuven, Conklin, & Tunney, 2014). Therefore, the oral proficiency of the learners can be improved concerning fluency enhancement.

Moreover, the amount of animation effectiveness is closely related to the age of the learners. By considering the benefits of the communicative approach, it has become essential to explore learners' needs as a step before curriculum design. According to Munby (1978), who argues the relationship between the needs of learners and motivation for learning language, a program whose objectives and contents match the students' needs and interests are highly motivating. Sundberg’s study (1998), however, reflects that animation had no significant effect on adults.
learning while it can be inspiring for children. While adults are much better able to make an intimate visual scene from a text and also enjoy better imagery ability, children are not entirely successful in developing this skill. After puberty, a person's imagery ability will extend more, and their learning will not be restricted to visuals.

Furthermore, animation provides an authentic context of target language presentation in academic atmospheres of EFL classrooms (Reiber's, 1989). McCarthy (1990) believes that a word learned in a meaningful context is assimilated and remembered in the best way. Based on the mentioned remarks, animation can have the potential to be an appropriate device for teaching language to children. FSs instruction is not an exception in this regard, and they can be represented in the context of animation, which is a vibrant and motivating source of an authentic oral model to help L2 learners.

The use of IWB can aid in displaying animation and teaching FSs to younger learners in so far as they can learn best with the contribution of all of their senses like hearing, seeing, and touching in parallel with verbal interaction (Walker-Tileston, 2004, in Hall & Higgins, 2005). IWB is a large display powered by easy-to-use software that connects to a laptop and a projector. It has the capability of playing animation while running subtitles (Appendix B) on a large scale with an enabled interactivity system for the students' responses. The computer desktop is projected onto the surface of a board while the teacher controls the content with a pointer or finger or another device instead of a mouse or keyboard. The IWB is a mixture of all previous teaching resources, such as the plain whiteboard, chalkboard, television, a video or CD player, overhead projector, and computers. Children can watch animation on the screen while listening to the dialogues in L2; they can visualize the scenes and actions; they can touch physically and play games interactively or work with written texts in the target language, all of everything that can aid in reinforcement of their language competence (Hall & Higgins, 2005).
Researchers have stressed teaching FSs or lexicon with the aim of language proficiency improvement (Lewis, 1993, 1997; Schmitt, 2004; Taguchi, 2008; Mirzaei, Hashemian, & Azizi Farsani, 2016). Further, various studies have witnessed computer application in language pedagogical system (Huemer, Landerl, Aron, & Lyytinen, 2008; Saine, Lerkkanen, Ahonen, Tolvanen, & Lyytinen, 2011). A majority of previous studies on both domains, however, have not overlapped. In other words, the programs for language instructions are based on representing isolated words, rather than natural language context or classroom environment (Karemaker, A., Pitchford, N. J., & O’Malley, C., 2010). Moreover, Saine, Lerkkanen, Ahonen, Tolvanen, and Lyytinen (2013) suggest that the majority of previous studies on computer-assisted language learning has not included control groups who receive conventional instruction rather than contributing to a researcher intervention program, and most of the studies do not consider effect sizes.

Therefore, there is a need for more systematic research to fill this gap and probe the possible interface of teaching FSs and digital affordance. Thus, the current study, drawing upon the Lexical Approach, attempts to explore the influence of using digital affordances for teaching prefabricated chunks. Therefore, animation as a product of the digital era and also, as media of storytelling and visual entertainment, can be used for teaching language in one of the experimental groups and reading was used in another experimental group in order to compare the role of technology with traditional ways of language instruction. The context of this study is an immersion program school in Shahrekord, in the southwest of Iran. Despite the school authority attempts to start teaching English from an early age, there is no pre-determined methodology for language teachers and learners to attain proficiency at low levels. Thus, every innovation for helping the efficient use of technology for enhancing L2 communicative skills is welcomed by school authorities. This study supposes that teaching FSs can introduce a new way of improving speech proficiency by changing
the mainstream of current syllabi of Iranian schools and institutions. Consequently, the following research question was formulated for the present research:

- Is there any statistically significant difference between the oral proficiency of young Iranian EFL students who receive FSs instruction and the oral proficiency of those who receive non-FSs instruction? If so, is it more useful to teach FSs via animation or the traditional way of text-based readings?

**Method**

**Participants**

The participants of this study were 80 EFL students from an immersion program school in Shahrekord. Their ages ranged from 11 to 12, and all of them were male Persian native speakers who were in grade five of primary school. For homogeneity purposes, the online Cambridge Preliminary English Test (PET) was administered among the fifth-grade students who were at the pre-intermediate level. After ensuring the homogeneity of the learners, they were randomly divided into three groups, i.e., two experimental and one control group, each consisting of 20 students. During 24 instructional sessions (four days a week), one experimental group received the FSs instruction through animation, the other experimental group received FSs instruction through text-based readings, and the control group was taught using the school mainstream EFL textbooks without any focus on FSs. All of the groups were taught by experienced EFL teachers (with about 8 to 10 years of experience) of the mentioned school and had an M.A. in teaching English as a foreign language. Based on immersion curriculums, the teaching content is central, and the target language (English) is the medium of instruction. They had no background knowledge of considering a cluster of words as a prefabricated unit of language. Instead, they were accustomed to finding the counterpart meaning of every single word. In the context of the current
study, the content of the courses was taught in Persian during the morning from 8:00 a.m. to 12:00 p.m., and English was the medium of instruction for the same contents in the afternoon from 1 p.m. to 3 p.m. without any emphasis on FSs instruction.

**Instruments and Instructional Materials**

This study administered an American Council on the Teaching of Foreign Languages Oral Proficiency Interview (ACTFL OPI) as a standardized pretest and posttest for assessing speaking proficiency of both the experimental and control groups before and after the treatment. ACTFL primary levels are *Advanced*, *Intermediate*, and *Novice*, subdivided into *High*, *Mid*, and *Low* sublevels (Appendix A). The assessment was conducted in the form of face-to-face interviews, in which two expert interviewers assessed the speaking proficiency of every test taker by asking a series of questions in the context of a structured conversation. The questions were based on each test taker's interests as determined by a preliminary set of questions in the interview. They were adopted during the interview based on the test taker's speaking proficiency level.

Moreover, the scoring criterion was a rubric consisting of five general dimensions of L2 proficiency; *function, content, context, accuracy, and text types*. *Function* is what the learner can accomplish by the language. *Content* refers to the various topics that the learner can handle with high self-confidence. *Accuracy* deals with the range of exact phonology and syntax, and *text type* is how complex is the discourse, i.e., either the subject produces discrete words, broken sentences, or advanced paragraphs (Yoffe, 1997).

With the aim of teaching FSs to the animation-based group, a laptop and IWB were used for playing an animation which contained lexicon. The chosen animation was *"How to train your dragon,"* which was an American computer-animated film produced by DreamWorks Animation
Company in 2010. The focus was on selecting an attractive and motivating animation that was appropriate for the age of the participants.

Some FSs-focused readings (containing some FSs similar to whatever there was in selected animation' dialogue) were distributed among the participants of the reading-based group. The researchers chose interesting readings which were appropriate for the level and age of the students, and also with the centrality of FSs instruction.

Besides, Statistical Package Software for Social Sciences (SPSS: Version 21) was used for data analysis of the current study. A one-way ANOVA was run on the PET scores to ensure the initial homogeneity of the participants in terms of general language proficiency. Then, a one-way analysis of covariance (ANCOVA) was conducted for data analysis of the study data. Since the participants of the study were not identical to their attributes, the scores on the pre-test are treated as a covariate to 'control' the pre-existing differences between the groups. Moreover, ANCOVA was used to evaluate the effects of the three types of instruction on the participants' oral proficiency improvement.

**Procedure**

The participants took part in the ACTFL OPI pretest after being homogenized. Their interviews were recorded by a voice recorder and then scored by two experienced judges (with 9 to 10 years of EFL teaching experience). After dividing the learners into three groups, the treatment started in the two experimental groups and lasted for a sequence of 24 sessions (about two months). Both experimental groups underwent the same time duration of instruction. One of them was provided with FSs instruction through animation, while the other group received FSs based on reading texts without any computer affordance. Simultaneously, the control group continued with the school EFL prescribed program without noticing the lexicon.
In the process of teaching FSs via animation, the animation was synchronically played with its subtitle by an IWB (Appendix C). Prefabricated chunks were highlighted in running subtitles on IWB. In the next stage, the teacher drew students' attention to the fixed combination of words. Then, the students were asked to guess their meanings according to the contexts and the ongoing story events. Further, the teacher asked students to memorize the chunks of speech rather than the discrete words in order to bring the holistic nature of FSs into their attention. The instructor also skipped the grammatical analysis of prefabricated chunks (based on lexical approach assumptions). Accordingly, the learners were supposed to perceive the concordance between the holistic nature of FSs and the context of the played animation. In parallel, the teacher explained the unitary meaning of phrases explicitly by emphasizing their holistic nature against what they had learned before.

Later on, students were asked to write a summary of what happened in animation by using already learned lexical chunks in the animated movie. (Some examples of the participants' transcriptions are presented in Appendix D). By writing, the teacher elaborated on the accuracy of the unanalyzed chunks and checked the students' written summaries. Offering linguistic feedback is an effective way to provide oral focus-on-form in the EFL classroom (Doughty & Williams, 1998; Lyster & Ranta, 1997). Subsequently, the students worked on their summaries in groups by expressing their points of view and shared their comments on others' performance. The teacher observed the learners’ performance through their written summaries and assisted them in problematic occasions.

Simultaneously, FSs were taught in the other experimental group through text-based readings. The text-based readings were selected based on their inclusion of FSs and their appropriateness for the age and language level of the learners. The procedure of teaching every reading text was started with brainstorming and pre-reading questions to elicit students’ prior knowledge related to the topics under inquiry, followed by a
meticulous study of the reading texts concentrating on comprehension and language learning and certainly, noticing FSs. The teacher also brought the unitary meaning of FSs to the learners’ notice and asked them to highlight the strings of words that indicate a formulaic unit of speech to understand the holistic definition of the chunks rather than their word-by-word atomistic analysis. In order to implement the guidelines of Lewis (1993) for FSs instruction, the teacher thus concentrated on activities of repetition and recycling, and comparison and translations of L1 and L2 chunk-by-chunk rather than word-by-word. Then, post-reading questions were asked to check their reading comprehension and also about sharing their own experiences. Students were asked to be aware of prefabricated chunks in the reading texts and try to use them in their later summaries of reading. Finally, a discussion was launched for the learners to express their views, and the instructor noticed that the students could use FSs in their speeches.

While FSs were the focus of instruction in the experimental groups, the control group continued the conventional syllabus of the school without any focus on FSs instruction. The focus of instruction was given to discrete words and metalinguistic explanations of grammar rules in traditional trends. At the end of the instructional period, ACTFL OPI posttests were collected. The researcher recorded and then transcribed the students’ interviews on both pretests and posttests in order to have a permanent record of their oral performance for later analysis by impartial judges. Every learner was scored by two experienced judges (with 9 to 10 years of teaching experience) during the pretest and posttest interviews. The judges scored the interviewees’ performances according to speech naturalness, accuracy, fluency, and rate of FSs usage and other proficiency indexes of the ACTFL OPI test. An ordinal rating scale was employed for each subscale (i.e. 0 = weak, 1 = neutral, 2 = good, 3 = very good, 4 = excellent); the scores of the sub-scales were then averaged to obtain the final score for each individual. Pearson product-moment correlation coefficient (adjusted for two raters by use of Spearman-Brown prophecy
formula) was applied for calculating inter-rater reliability estimates. The results showed good agreement between the two sets of scores reported by the raters ($r = .682$, $Adj = .79$, $p < .01$).

**Results**

**Efficacy of FS Instruction (animation-based vs. text-based reading)**

In order to compare the achievement of the learners in the animation-based, text-based reading, and control groups on the ACTFL OPI test from the pretests to the posttests, descriptive statistics were calculated. Descriptive statistics of the pretest and posttest oral proficiency scores in all three groups of the study are displayed in Table 1. As is evident in Table 1, the mean and standard deviation (SD) of the animation-based and reading-based groups' oral proficiency scores have highly improved during FSs instruction compared to the control group, which continued its usual traditional syllabus. As can be seen in Table 1, learners' scores on both pretest and posttest have satisfying normal distribution since Kurtosis and Skewness values of the learners' scores do not violate the range of ±1.5.

Table 1.

**Descriptive Statistics of Pre- and Posttests Results**

<table>
<thead>
<tr>
<th>Group</th>
<th>Time</th>
<th>N</th>
<th>min</th>
<th>max</th>
<th>Mean</th>
<th>SD</th>
<th>Skewness</th>
<th>Kurtosis</th>
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</thead>
<tbody>
<tr>
<td>Control</td>
<td>Pretest</td>
<td>20</td>
<td>8</td>
<td>15</td>
<td>12.89</td>
<td>2.60</td>
<td>-.87</td>
<td>-.30</td>
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<tr>
<td></td>
<td>posttest</td>
<td>20</td>
<td>9</td>
<td>15</td>
<td>12.30</td>
<td>1.83</td>
<td>.072</td>
<td>-.12</td>
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<tr>
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<td>Pretest</td>
<td>20</td>
<td>9</td>
<td>16</td>
<td>12.85</td>
<td>1.75</td>
<td>.12</td>
<td>.18</td>
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<tr>
<td></td>
<td>posttest</td>
<td>20</td>
<td>9</td>
<td>17</td>
<td>13.45</td>
<td>1.95</td>
<td>.10</td>
<td>-.66</td>
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<tr>
<td>Animation-based</td>
<td>Pretest</td>
<td>20</td>
<td>7</td>
<td>18</td>
<td>12.90</td>
<td>2.63</td>
<td>-.14</td>
<td>.18</td>
</tr>
<tr>
<td></td>
<td>posttest</td>
<td>20</td>
<td>9</td>
<td>20</td>
<td>14.00</td>
<td>1.93</td>
<td>.35</td>
<td>-.98</td>
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</table>

For the current study, a one-way ANOVA was run on the pre-test scores to ensure the initial homogeneity of the participants in terms of general language proficiency. Based on Levine's equality of error variance, $F(2, 57) = 2.6, p = .08$, there was no significant difference across the three
groups. Then, an analysis of covariance (ANCOVA) was applied to examine the effect of FSs instruction on young Iranian L2 learners' oral proficiency improvement. The scores on the pre-test are treated as a covariate to 'control' the pre-existing differences between the groups (because the participants of the study were not the same concerning their attributes). It was essential to be assured that the data can be analyzed using ANCOVA by considering the basic underlying assumption including homogeneity of the variances, regular distribution of the dependent variable (posttest scores) for every one of independent variables (group), and at last, no interaction between pretest scores and the treatment in different groups.

Tests of between-subjects' effects provide the most useful results in order to show whether FSs instruction had any significant effect on learners' oral proficiency or not. As indicated in Table 2, the test of between-subjects' effects shows that after the treatment, the significant level is 0.000 for the independent variable (group), so it is evident that groups differ significantly for their oral proficiency improvement. Further, the effect size is determined by partial eta squared value, and it can be reported in percentage (by multiplying the result by 100). The partial eta squared value of the independent variable is only 33.4 percent of the variance. As it was shown in Table 2, 56.2 percent of variance can be due to the successful treatment in terms of teaching FSs to improve oral proficiency. Moreover, the significant level of the covariate is equal to 0.000, which is less than .05; it indicates a unique relationship between the covariate and dependent variable (oral proficiency improvement) while controlling for independent variables (groups).
Table 2.

**ANCOVA Results for Participants Oral Proficiency Improvement**

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>Degree of freedom (df)</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
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<tr>
<td>Corrected Model</td>
<td>207.610&lt;sup&gt;a&lt;/sup&gt;</td>
<td>3</td>
<td>113.537</td>
<td>34.29</td>
<td>.000</td>
<td>.648</td>
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<tr>
<td>Intercept</td>
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<td>128.007</td>
<td>40.02</td>
<td>.000</td>
<td>.310</td>
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<tr>
<td>Group</td>
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<td>48.19</td>
<td>.000</td>
<td>.334</td>
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<tr>
<td>Pretest</td>
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<td>19.977</td>
<td>21.09</td>
<td>.000</td>
<td>.562</td>
</tr>
<tr>
<td>Error</td>
<td>125.573</td>
<td>56</td>
<td>.878</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1055.000</td>
<td>60</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>344.183</td>
<td>59</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Also, a set of Bonferroni-adjusted comparisons was run to determine which instruction was more influential for oral proficiency improvement. The results are displayed in Table 3. Based on the post hoc (Bonferroni-adjusted) pairwise comparisons, both animation-based and reading-based instruction of FSs improved the oral proficiency of the students in comparison with the control group. Moreover, the results revealed that animation-based instruction had a more significant effect rather than the reading-based one.

Table 3.

**Pairwise Comparisons between Different Groups Oral Proficiency**

<table>
<thead>
<tr>
<th>(I)Group</th>
<th>(J)Group</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig. &lt;sup&gt;b&lt;/sup&gt;</th>
<th>95% Confidence Interval for Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>Reading-based</td>
<td>-.218</td>
<td>.167</td>
<td>.597</td>
<td>-1.045 to .630</td>
</tr>
<tr>
<td>Reading-based</td>
<td>Animation based</td>
<td>-.632&lt;sup&gt;*&lt;/sup&gt;</td>
<td>.167</td>
<td>.001</td>
<td>-1.220 to -.045</td>
</tr>
<tr>
<td>Animation based</td>
<td>Control</td>
<td>.632&lt;sup&gt;*&lt;/sup&gt;</td>
<td>.167</td>
<td>.001</td>
<td>.220 to 1.045</td>
</tr>
</tbody>
</table>
Moreover, Figure 1 demonstrates the higher oral proficiency of experimental groups in comparison with the control group. As it was elicited from the pretest scores, three groups were recognized as homogeneous samples, while the posttest mean scores showed remarkable achievement due to FSs instruction in both experimental groups. Also, it reveals more excellent oral proficiency of animation-based group in comparison with both the reading-based and control group, which had no focus on FSs.

Figure 1.
*Interaction Plot for the Groups’ Oral Proficiency Improvement through FSs Instruction*

**Discussion**

The findings of the present research indicated that after controlling possible differences between groups, oral proficiency of young L2 learners in both animation-based and reading-based groups upgraded significantly in comparison with the control group who continued conventional non-
lexis instructions of the school without any focus on the principles of the Lexical Approach. The underlying logic for this result is linked to the theoretical assumptions of FSs as they are fixed strings of words, saved in long-term memory as a lexicon, and act as idiosyncratic units of meaning that can be retrieved automatically. Due to their holistic nature of retrieval from memory, this lexicon can increase the pace of language production to reducing unnecessary pauses for analyzing the grammatical rules and making the appropriate cluster of words in early levels of language learning. This is what Lewis (1993; p. 89) had contended by the term of "grammaticalized lexis."

The findings of this study revealed that it is useful to apply animation and IWB for teaching FSs rather than the traditional way of text-based reading. The setting of animation has the potential to be a natural context for supplying language learning through explaining scenes, summarizing stories, and interpreting the various communicative functions as it was taking place in everyday scenes of human interactions. Despite the reading-based groups who had the exact written form of the FSs in front of themselves, there was a part of communication failure in the comprehension of exact forms of dialogues in the animation-based group. This communication breakdown was due to a reduction of element sequences by native speakers' utterances concerning their shared schemata of FSs in the context. Since there was a discrepancy between spoken dialogues and the exact form of language items represented in animation. To compensate for this issue, the instructional strategy for the animation-based group was based on displaying subtitles via an IWB with the capability of pausing for further elaboration and giving an explicit explanation on reduced forms of FSs. By reinforcing proper forms of FSs, L2 learners could access a precious treasure of ready-to-use chunks for summarizing the stories and taking part in discussions without referring to complicated stages of formulating novel utterances of language.
The results of this study concur with the research attempt by Bisson et al., (2014), who have explored the significance of multimedia exposure and incidental L2 learning. Despite the efforts for teaching FSs intentionally, the learners acquire some peripheral proficiency qualification, such as native-like accent and pronunciation. Therefore, posttest scores were highly improved in comparison with the pretest scores, while the interviewers reported that the experimental groups were more confident in articulating longer runs of word strings in the posttest in comparison with the pretest. It can be concluded that in terms of accuracy and fluency of speech, prefabricated chunks created a repertoire for EFL students' impetuous utterances. The learners could retrieve strings of words from their memory, and thus they could maintain a long run of speech. Moreover, the binary nature of incidental and intentional learning co-occurs in an animation-based instructional style, and the learners could benefit from both types of incidental and intentional learning strategies.

In this study, the FSs were represented in both Paivio's codes. The learners had virtual subtitles as their verbal codes displayed on IWB, as they were following the imaginable occurrence of FSs in the speech of animation characters. As Sundberg (1998) declares, animation builds a referential connection between inputs from these two codes. To this end, animation and IWB were useful devices for teaching FSs to EFL learners rather than other instructional methods, like reading. The findings of this study lent additional support to Lewis (1993) and O’keeffe et al. (2007), who have demonstrated the effects of computers and technology interface with the curriculum of language instruction. Based on the results of this study, animation as a digital resource has the potential to create integrative motivation for young learners.

Furthermore, animation matches the EFL learners' interests in young ages by providing a corpus which wraps the learners' minds in an imaginary context of the target language. While the animation was played, the learners were deeply involved in comprehending the intended meaning
of the characters. To avoid communication failure, the learners persevered with FSs learning, which signified sources of intrinsic motivation (Schmidt et al., 1996). Based on the reports prepared by the instructors, the learners of the animation-based group strived for learning whatever facilitated their understanding of the chosen animation. As they were involved in learning activities, they were tracing the path for integrating with the L2 community in terms of imitating a native-like oral speech. Based on the mentioned justification, animation has a powerful influence on both intrinsic and integrative motivation stimulation.

Moreover, the results of this investigation supported the perspective of Wood (2007), who believes that having a vast repertoire of FSs can speed up the rate of language production and consequently improve oral proficiency. Focusing on produced utterances in the posttest revealed that memorizing the words in chunks could increase the young learners' ability for predicting words occurrence in a fixed order. Therefore, the production of inappropriate and strange word combinations by these non-native learners was rare. Besides, the students did not need to learn complicated grammatical rules at an early age due to their repertoire of FSs with the holistic nature of retrieval from memory. Consequently, more accurate and fluent utterances were produced, and the learners became more proficient speakers.

The present study has tried to put the principles of input, noticing theory into practice. During FSs instruction, the teachers were asked to draw students' attention to the fixed combination of words by highlighting prefabricated chunks in both animation-based (in the virtual subtitle on IWB) and reading-based groups (in the prepared text-based readings). The results of this study can be linked to the perspective of Schmidt (2010) which proposes that allocating students' attention to FSs is the pivotal point to bring the learner’s external factors (such as instructional treatment, complexity of discourse, interactional context) and internal factors (such
as aptitude, learning strategies and styles, motivation, and processing ability) together for successful language learning. The growth of language knowledge by producing new representations continued by fluency improvement (which is a subfactor of oral proficiency) through accessing those representations.

Like any research, the current study suffers from some restrictions and leaves the research gates open for future researchers of related domains. Meanwhile, the empirical data of this study draws upon a small number of participants who belong to an immersion program school. Thus, larger samples of EFL from different language centers would be more representative. Although the aim of this study is having a clear picture of the implication of FSs to improve English oral proficiency in academic situations, the picture does not cover the entire broad spectrum of every young EFL student. Also, the matter of subjective judgment of the experienced judges can be questioned.

Conclusion

The results of the current study revealed that learning FSs was productive for improving the oral proficiency of young Iranian L2 students at an immersion program school. Further, it was discussed that animation has the potential to be integrated into language pedagogical systems due to their properties for motivating young L2 learners and bridging the gap between technology and language learning. It was concluded that the students in the animation-based group outperformed the reading-based group in accomplishing oral proficiency tasks. The accumulated evidence of the current study may shed light on the issue of how to develop L2 students’ oral performance by raising their awareness of these multi-word units. This study can yield oral proficiency improvement in EFL educational systems by its pedagogical implications for English language teachers and the importance of prefabricated chunks in their classroom instruction.
Furthermore, this research offers guidance for teachers and administrators during the process of curriculum and syllabus development to use formulaic language to improve oral communication during the early stages of EFL instruction. They can offer a contextualized course and attend to the teaching of FSs with the assistance of computers in their curriculum. The results will be beneficial for materials designers as well; for example, they can use animations to motivate the learners to facilitate their academic-based learning of L2.

Conducting studies like the present one is useful for opening new practical perspectives toward EFL instruction through computerized resources like animation and IWB and the effect of these resources on psycholinguistic and pedagogical matters of language learning. The results of the study may help the teachers to employ the approaches which are consistent with the motivations of their learners. Animation reduces the EFL students' boredom and motivates the learners to get involved in the learning procedure. Also, it vitalizes the disappointed teachers, adding interest to their classroom’s atmosphere.

The advantages of FSs instruction are more noticeable for immersion program school students who use language as a medium of understanding scientific content at young ages. At this age and level of knowledge, the students even do not know much about their own language's grammar. In this respect, FSs instruction can pave the way for the need of grammar for primary levels of EFL due to its holistic approach toward receptive and productive language learning skills.

It was conferred from the results that animation has the capability to teach new cognitive content in the field of language pedagogy as it can apply new linguistic codes (L2) mapped onto previously learned concepts. Although, there is a need for further investigations to devise practical strategies for its implication in an L2 pedagogical system.

Overall, the findings of the current study demonstrated that the effective use of FSs could be a productive mechanism for improving oral
proficiency. Besides, knowing about the pedagogical implications of FSs can be important for L2 practitioners (e.g., L2 teachers and students) in most of the L2 classes. Therefore, L2 learners and teachers should not only pay attention to the formulacity of language, but they should also consider the most valuable resource for FSs instruction.

**References**


Appendix A

ACTFL Rating Scale

<table>
<thead>
<tr>
<th>Proficiency Level</th>
<th>Global Tasks and Functions</th>
<th>Context/Content</th>
<th>Accuracy/Comprehensibility</th>
<th>Text Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Superior</td>
<td>Discuss topics extensively, support opinions and hypothesize. Deal with a linguistically unfamiliar situation.</td>
<td>Most formal and informal settings/ Wide range of general interest topics and some special fields of interest and expertise</td>
<td>No pattern of errors in basic structures. Errors virtually never interfere with communication or distract the native speaker from the message</td>
<td>Extended discourse</td>
</tr>
<tr>
<td>Advanced</td>
<td>Narrate and describe in major time frames and deal effectively with unanticipated complication.</td>
<td>Most informal and some formal settings/ Topics of personal and general interest</td>
<td>Understood without difficulty by speakers accustomed to dealing with non-native speakers</td>
<td>Paragraphs</td>
</tr>
<tr>
<td>Intermediate</td>
<td>Create with language, initiate, maintain, and bring to a close simple conversations by asking and responding to simple questions.</td>
<td>Some informal settings and limited number of transactional situations/ Predictable, familiar topics related to daily activities</td>
<td>Understood, with some repetition, by speakers accustomed to dealing with non-native speakers.</td>
<td>Discrete sentences</td>
</tr>
<tr>
<td>Novice</td>
<td>Communicate minimally with formulae and new utterances, list and platoon.</td>
<td>Most common informal settings/ Most common aspects of daily life</td>
<td>May be difficult to understand, even for speakers accustomed to dealing with non-native speakers</td>
<td>Individual words and phrases</td>
</tr>
</tbody>
</table>

Appendix B

The subtitle of played animation episodes for current research

(Containing FSs)

00:01:38,111 --> 00:01:39,976
- What are you doing here?
- Get inside!
00:01:40,113 --> 00:01:42,911
- What are you doing out?
- Get back inside!
00:01:45,452 --> 00:01:50,048
Hiccup! What is he doing...?
What are you doing out? Get inside!
00:01:50,190 --> 00:01:53,819
That's Stoick the Vast, chief of the tribe.
When he was a baby, he popped.
A dragon's head clean off its shoulders.
Do I believe it? Yes, I do.
What have we got?
Hoark was a Monstrous Nightmare.
- Any Night Furies?
  - None so far.
Good.
Hoist the torches!
Nice of you to join the party!
I thought you'd been carried off!
Who, me? No, come on,
I'm way too muscular for their taste.
They wouldn't know
What to do with all this.
Appendix C
Playing Animation via Interactive Board

Appendix D
Examples of students' oral products transcription (related to the animation-based group)
1) This story is about country that dragons attack this. There was some animals there, and fire Vikings homes. This fiction start with father of hiccup say to hiccup “what are you doing here? Get inside what are you doing out? Get back inside. Hiccup what he is doing? ….What are you doing out? Get bake inside! Gabber say “nice of you to join the party. I thought you’d been carried off”. Hiccup answers “who me? No, come on! I’m way too muscular for their taste! They wouldn’t know what to do with all this!
2) In a country, there is a boy that name is Hiccup. The name of the village is Berk. Once night 6 or 7 dragons fired this village. The soldier try to kill dragons but every places fired and eyes didn't see. Hiccup's father says: what are you doing here? Get inside! Hiccup's father says: what are you doing out? Get back inside! Hiccup's father says: what is he doing... What are doing out? Get inside! Hiccup's friend says: nice of to you to join the party! I thought you'd been carried off? Hiccup says: who, me? No, come on, I'm way too muscular for the taste. Hiccup say: they wouldn't know what to do with all this.

3) My subject is how train your dragon. Berk is quiet land, and Wikings live in Berk. Hiccup grow up in Berk. One day, dragon attacked the Berk. Although dragon was strong but people resist. Hiccup's father say: what are you doing here?! Get inside. What are you doing out? Get back in side! Hiccup! What is he doing...? What are you doing out? Get inside! Fathers Friend or Gabber say: nice of you to join the party! I thought you'd been carried off! Hiccup say: who, me? No, come on. I’m way too muscular for their taste. They wouldn’t know what to do with all this! This story is about how to train your dragon special person of story is hiccup. hiccup wanted help his father but he can’t father says what are you doing here get inside! What are you doing out? Get back inside! Hiccup what is he doing what are you doing out get inside! Goberl says nice of you to going the party! I thought you’d been carried off! Hiccup says who me no come on I’m way too muscular for their taste they wouldn’t know what to do with all this.

4) I want talk about one country that dragon attacks this country. This story start one day that Hiccup and father go to picnics. Five dragons attacks this country. 'Blandon, storm, and one dragon that has two head. That five dragon want to fire this country. The father says 'what are you doing here? Get inside! What are you doing out?! Get back inside! Hiccup! What is he doing...? What are you doing out? Get inside! His friend say' nice of you to join the party! I thought you'd been carried off! Hiccup say 'who? Me? No! Come on! I'm way too muscular for their taste.