The present study intended to integrate some 21st century skills teaching into English classroom and investigate their effect on listening and reading comprehension skills. In so doing, the study used a quantitative, experimental design with 55 participants, 25 in the control group and 30 in the experimental group who were students of second high school grade in Birjand with convenience sampling. Final National listening and speaking examination was used as the pretest and posttest. The results of a pretest showed that, the students of the two groups were homogenous with regard to their proficiency level. Then, they were divided into experimental group who practiced speaking and listening by means of 21st century skills, and control group who practiced the same speaking and listening activities with traditional education. After the twelfth session, the participants took a posttest. And, the results of the post-test showed that learning 21st century skills have a positive effect on speaking and listening skills.

**Keywords:** 21st Century Skills, Speaking, Listening, Teaching, EFL.

**ABSTRACT**

The present study intended to integrate some 21st century skills teaching into English classroom and investigate their effect on listening and reading comprehension skills. In so doing, the study used a quantitative, experimental design with 55 participants, 25 in the control group and 30 in the experimental group who were students of second high school grade in Birjand with convenience sampling. Final National listening and speaking examination was used as the pretest and posttest. The results of a pretest showed that, the students of the two groups were homogenous with regard to their proficiency level. Then, they were divided into experimental group who practiced speaking and listening by means of 21st century skills, and control group who practiced the same speaking and listening activities with traditional education. After the twelfth session, the participants took a posttest. And, the results of the post-test showed that learning 21st century skills have a positive effect on speaking and listening skills.

**INTRODUCTION**

Today's classrooms are different from the ones the authors have in our memories. The world is being changed. Today's students have been changed. They seek some other kind of relationships with their teacher, classmates, and instruction materials. They learn in different ways. They are not strange creatures. They belong to their own world and they should be taught for their own age by their own methods. They are “no longer to be seen as a passive receptacle for knowledge, but instead as an active participant in the construction of knowledge” (Nissim et al., 2016, p. 29). Students today “will graduate into a world where the demands of our professional, personal, and public lives grow more complicated every year” ("Partnership for 21st century learning", para. 2). Cator (2010, as cited in education week) argues that students today should evolve especial skills for being successful in a changing, interdependent, and complicated universe. Today, teaching must satisfy the requirements of a future determined by continual novelty and development (Pearson, 2015). “Teaching and learning in the 21st century is filled with challenge and opportunity, especially when teaching students for whom English is a new language” (ibid, p. 5). Nissim et al. (2016) asserts that the 21st century learning setting might be “a process-supporting system” that establishes a context in which learners learn more effective.

Jacobson-Lundeberg (2016) in his study investigated students' perceptions of how intentionally taught 21th century skills have transformed their lives. Their findings have shown that 21st century skills empowered students for their future job success and also, they increase their confidence, self-efficacy, and credibility. In another study, Nissim et al. (2016) examined the influence of an innovative technology-supported learning environment on pre-service student teachers' motivation and 21st century skills. Their results revealed a significant effect in the new learning environment with 21st century skills.
Regarding the importance of 21\textsuperscript{st} century skills in today's students' lives, this study aims to integrate some 21\textsuperscript{st} century skills and investigate their effect on teaching listening and speaking in English classrooms.

1. Research Question

In as much as the purposes of the study are to examine the effect of 21\textsuperscript{st} century skills on EFL learners' listening and speaking abilities, this study addresses the following questions:

Q1: Does the application of 21\textsuperscript{st} century skills have any significant effects on the listening skill of Iranian EFL learners?

Q2: Does the application of 21\textsuperscript{st} century skills have any significant effects on the speaking skill of Iranian EFL learners?

2. Research Hypotheses

The following null hypotheses are proposed:

H01: The application of 21\textsuperscript{st} century skills do not have significant effects on the listening skill of Iranian EFL learners.

H02: The application of 21\textsuperscript{st} century skills do not have significant effects on the speaking skill of Iranian EFL learners.

3. Literature Review

Rich (2010, as cited in education week) defines 21\textsuperscript{st}-century skills as “certain core competencies, such as collaboration, digital literacy, critical thinking, and problem-solving that advocates believe schools need to teach to help students thrive in today’s world”. 21\textsuperscript{st}-century skills are the vital SS 21\textsuperscript{st}-century skills that should be expanded into instructional organization, such as: 1) “learning and innovation skills”; 2) “information, media, and technology skills”; and 3) “life and career skills” (Farisi, 2016).

Quieng et al. (2015) argued that the essence of 21\textsuperscript{st} century skills is equipping the individuals in future to confront the problems of real life positions to maintain the advancement of the world and convert it into an improved situation to be alive. They also added that the purpose of educating and acquiring in the 21\textsuperscript{st} century is to make students competent in “content knowledge, specific abilities, literacy, numeracy, and technology uses” (p. 72).

According to Pearson (2013) 21\textsuperscript{st} century skills come into three categories: learning and innovation skills, information, media, and technology skills, as well as life and career skills. 21\textsuperscript{st} centuries skills are one of the most important issues arisen from educators' concern about teaching youth. The Partnership for 21\textsuperscript{st} Century Skills has also developed a framework for 21\textsuperscript{st} century learning introducing the skills that students need to thrive in today's global economy. The framework developed by P12 is based on a solid foundation of content knowledge, and supported by specific skill, expertise, and literacies necessary for success in personal and professional domains. According to Partnership, every student must be a critical thinker, a problem solver, an innovator, an effective communicator, a self-directed learner, information and media literate, globally aware and civically engaged, and also financially and economically literate.

There are some themes in the instructional activities, including global awareness, financial, economic business, official literacy, civil literacy, health literacy, and environmental literacy (Trilling and Fadel, 2009). Looking at the Figure 1 below, the “pools” underneath the rainbow consist of standards and assessments, curriculum and instruction, professional development, and learning environment.

Andrade (2016) in his study determined curricular components for learner achievement, just as the flipped classroom, course redesign, and high impact practices, and links these to self-regulated learning to increase learner
responsibility for the achievement of desired higher education outcomes as 21st century skills. Farisi (2016) investigated and explained academics evolution toward a commitment and further developments in research; 21st-century skills map for the SS; and the implications for developing teachers' competences and teachers' education curriculum. Suto (2013) in his study has cited some practical methods of how to develop the 21st century skills, including: continue with long-standing methods of teaching 21st century skills, develop curricula covering 21st century skills explicitly, adopt a skills-centered pedagogy in schools and colleges, nurture 21st century skills through extra-curricular activities, cultivate 21st century skills through independent research projects, and develop 21st century skills in the workplace (p. 18).

In another study, Quieng et al. (2015) distinguished the recognized range of “integration of 21st century-based soft skills in the cognitive-laden dentistry curriculum”, and investigated the recognized “21st century-based soft skills of the student participants to serve as baseline data for future research”. In their study, they conformed the special result areas of soft skills used in the study of Wilson-Ahlstrom, Yohalem, DuBois, and Ji (2011), such as “communication, relationships and collaboration, critical thinking and decision making, and initiative and self-direction”. They found that Communication, and relationship and collaboration skills will be vital elements to provoke learners. Kivunja (2014c) in his article, adapted the work of Kivunja (Kivunja, 2014a and 2014b) and expanded an awareness of the new learning paradigm by arguing its Career and Life Skills (CLS) domain.

Regarding the effectiveness of other approaches on teaching speaking and listening, Lino et al. (2016) examined “the effects of using Video Conferencing (VC) as a tool for foreign language instructions in a semester long research study”. Their results revealed that “using VC with tasks in a blended manner with classroom instruction develops balanced L2 competence and performance”. Also, Jannejad et al. (2012) in an attempt pursued to distinguish the likely “interactions between listening proficiency and the state of strategic self-awareness”; and to examine “the effects of learned strategies on listening comprehension and recall”; and to explain “the most common real-time listening comprehension problems faced by EFL learners and to compare the differences between learners with different listening abilities” (p. 155). Their findings showed the reasons of useless low-level processing and presented awareness to resolve the issues of parsing. In addition, their findings showed that explicit instruction of cognitive and metacognitive strategies is required if a syllabus aims to assist learners enhance their listening comprehension and become more-competent at leading their own education. Farhady and Motallebzadeh (2014) in his study examined the effect of 21st century skills on reading comprehension. Their results have shown that 21st century skills have a positive effect on reading comprehension. Therefore, instead of listening and speaking, 21st century skills also have a significant effect on the reading comprehension. Finally, Ashraf et al. (2016) developed and validated a self-reported questionnaire with the aim of evaluating ELT community's performance in the 21st century skills. They argued that, "the 21st CSQ is then a valid and reliable questionnaire which can be used for several studies in the area of the new world skills needed to live and work" (p. 15). For us, as English teachers, how can we use 21st century skills in our classroom and which effect it will have on their language skills? This study was conducted in order to look into integrating 21st century skills into teaching English in Iranian context and investigate its effect on speaking and listening skills.

4. Methodology

4.1 Participants

The participants of this study included 55 female students studying in the second grade of high school at two different classes in Birjand, Khorasan Razavi, Iran. They were divided into control and experimental groups. There were 25 learners in the experimental and 30 learners in the control group. The pretest (T1) showed that the two groups were homogenous in terms of English language proficiency. The female teacher of both two groups was alike to eliminate all of the probable influence of teacher’s character.

4.2 Instruments

The instruments which were utilized in the research are as follows:

Materials used for the treatments – These materials
included as 21st century skills during teaching speaking and listening.

The participants in the experimental group were taught by means of these instruments while in the classes where the control group used to attend; there was no trace of these skills of any sort at all. The 21st century skills are critical thinking and problem solving, communication and collaboration, interpersonal skills, leadership, and technology literacy. So, these skills were applied during speaking and listening courses.

The instruments used for data collection-The instruments used for data collection included tests. Final national listening and speaking examination conducted as pre-tests and post-tests. This test is a standardized test designed by national teachers and examiners, drawn from school books sources (Vision). This is a standardized test that assess students' language proficiency of a foreign /secondary language and has been implemented as a final exam once in a year. Its validity and reliability has been checked by top Iranian national examiners. Also, the aim of the vision course books is combining effective communicative methodology to give students the language and confidence they need to communicate accurately and fluently in English that corresponds closely with the aims of the teaching program and with the needs of the learners.

4.3 Design
Pre-test, post-test design with control group from the experimental research design, one of the quantitative research designs was used during the study. This design consists of two groups – the control group and the experimental group. Each group is subjected to pre-experimental and post-experimental measurements. In this design, the pre-test and post-test results are used in order to decide on the effectiveness of the independent variable.

4.4 Procedure
The study was done in autumn term 2016 for 12 sessions. To ensure that the students of both groups were homogenized on the part of language proficiency, two groups were tested by final national listening and speaking examination as pre-test on the first session. Each student had 90 minutes to answer all of the items. If they required any clarification because of any problems in interpreting the items, the teacher provided required explanation. From the second session on, experimental group was taught by means of 21st century skills. The learners practiced speaking and listening by means of some skills. Thus, the teacher took the advantage of using some kinds of skills in the experimental group. After all, the same teacher taught the control group through traditional education. They learned the same listening and speaking exercises without skills. Both groups were required to participate in each session. The teacher concentrated on teaching critical thinking, collaboration, creativity, and imagination. Some activities were integrated into the content supposed to be taught in high school. Here are some examples of the activities teacher did in the experiment class:

- What makes you sad and angry at school. Design some questions to ask your manager, teachers, and institution managers.
- Give solutions to those problems.
- Compare your solutions with your friends.
- Give group solutions.
- Discuss about a social problem. How your classmates see it? Give solutions.
- Imagine your future life, imagine your job, husband, home, car, what will you do to receive it? (ask help from your friends)…..

Some of the activities were given to students to think about, write or speak about it the next session and some were done in class. Some of the activities were done as the core of one session teaching and some others were done in ten or 15 minutes at the end of the class.

Then in the next stage of the study, in order to investigate the probable influence of treatment on students, final national listening and speaking examination were given to students on the twelfth session.

5. Data Analysis and Results

Q1: Is there any significant difference between the listening scores of the group instructed with 21st century skills (experimental group) and the group instructed with
H01: There is no significant difference between the listening scores of the experimental group and control group.

Firstly, to check the normality of data distribution, the Kolmogorov-Smirnov test was utilized. Table 1 presents the results of the Kolmogorov-Smirnov test for pre-test and post-tests of the groups. As it can be seen, the obtained sig value for both tests is higher than 0.05. Therefore, it can safely be concluded that the data is normally distributed across the variables.

To examine the pre-existing differences between the students' listening ability level in the two groups, an independent sample t-test was performed between the mean scores of control and experimental groups in pre-test. Simply put, the t-test aimed at looking for any significant difference between the two groups in relation to their level of listening ability. When the variances of these scores in both groups, were equal, the amount of p-value was higher than 0.05. It means: For pre-test, p-value = 0.441 > α = 0.05. It shows that with confidence interval of difference of 95%, there is no significant difference between the mean scores of the control and experimental groups. It means that students of control and experimental groups are homogenous on the part of their listening ability.

To answer the first research question, after the treatment and at the end of the term, an independent samples t-test was performed between the mean scores of the two groups. Table 2 shows the descriptive statistics of each group in listening post-tests.

As Table 2 shows, the mean score of the learners of control group (10.70) in post-test is lower than experimental group (12.25) in post-test. In addition, their standard deviation in both groups is low. This low standard deviation indicates that the data points tend to be close to the mean in both groups.

As it can be seen in Table 3, results of the t-test indicated that there was a significant difference between the mean scores of the control and experimental groups in post-test because: p-value = 0.021 < α = 0.05. Because mean score of experimental group is higher than mean score of control group, it can be said that teaching 21st century skills has effect on increasing listening scores.

Q2: Is there any significant difference between the speaking scores of the group instructed with 21st century skills (experimental group) and the group instructed with traditional way of teaching (control group)?

H02: there is no significant difference between the speaking scores of the experimental group and control group.

Table 4 presents the results of the Kolmogorov-Smirnov test for pre-test and post-tests of the groups. As it can be seen in Table 4, the results of the Kolmogorov-Smirnov test for pre-test and post-tests of speaking score indicated that the obtained sig value for both tests is higher than 0.05. Therefore, it can safely be concluded that the data is normally distributed across the tests.

To examine the pre-existing differences between the students' speaking ability level in the two groups, an independent sample t-test was performed between the mean scores of control and experimental groups in pre-test. The results of t-test showed that there is no significant difference between the mean scores of the control and experimental groups in speaking test (P = 0.566, t = -2.75). It means that students of control and experimental groups
are homogenous on the part of their speaking ability.

To answer the second research question, an independent samples t-test was performed between the mean scores of the post-tests of the two groups. Table 5 shows the descriptive statistics of each group in speaking post-tests.

As Table 5 shows, the mean score of the learners of control group (9.45) in speaking post-test is lower than experimental group (12.30). To find that these differences are significant, an independent sample t-test was performed (see Table 6).

As it can be seen in Table 6, results of the t-test indicated that there was a significant difference between the mean scores of the control and experimental groups in post-test because: $p$-value $= 0.006 < \alpha = 0.05$. Because mean score of experimental group is higher than mean score of control group, it can be said that teaching 21st century skills has effect on increasing speaking scores.

Conclusion

According to the results, 21st century skills had a significant influence on students listening and speaking. Thus, the null hypotheses were rejected. So, the students who were taught by means of 21st century skills significantly had a better performance than the students who were taught by the traditional teacher-centered methods of teaching listening and speaking session. Therefore, it can be concluded that 21st century skills play a facilitative role in listening and speaking.

Considering using of 21st century skills in EFL classes will improve learning mechanism by shaping appealing and fascinating environments, it is clear that, teachers should create better circumstances for increasing the broad application of it in any stage of language acquisition process. So, the first step should be increasing awareness of teachers of the 21st century skills, their importance, and their various exercises. Knowledgeable teachers will best transmit these skills to the students. Thus, teachers can not only profit from the application of skills in their teaching process and increase their information about teaching by means of "new technologies or the other skill areas like problem-solving, creativity, cooperation, critical thinking, etc., they can get proficiency and mastery on preparing and revising the best way to teach these kinds of skills" (Arabshahi et al., 2015, p. 76). There are numerous benefits towards implementing a collaborative context for learning. Sharan (1980) states that, the integration of collaborative structures into pedagogical approaches through which the individual learner transitions into some collaborative learning environment experiences significant improvements in leaning outcomes. There exists a significant positive relationship between learners' involvement in collaborative leaning environments and their critical thinking skills (Gokhale, 2005), and a sense of shared constructions of meaning. Moreover, Bruffee (1984) claims that such learning contexts enable the students to transfer the social skills promoted in the learning group to meaningful participation in the social interactions. Nunan (1992) also refer to the one of the critical aspects of language learning process in which the students are allowed to share and listen to other learners' stories and opinions. According to him this feature can be made possible by employing collaborative learning models, especially in the ESL context, allowing for students' voices to be heard. Bandura (1977) suggests that low achieving students can develop higher level of thinking skills more readily in collaborative groups due to modeling. Also, Kewley (1998) states that the peer collaboration encourages maximum student participation at the ideal level, resulting in more flexible thinking, multiple solutions, and a clearer understanding of the steps leading up to those solutions.

This very fact that creativity and innovation are very high on the list of 21st century skills, is not surprising given the fact that 21st century demands to continuously innovate new services, better processes, and improved products for the world's global economy. Erstad (2008) states that creative practices challenge the traditional relationship between

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental Group</td>
<td>12.30</td>
<td>2.40</td>
</tr>
<tr>
<td>Control Group</td>
<td>9.45</td>
<td>3.30</td>
</tr>
</tbody>
</table>

Table 5. Descriptive Statistics of each Group in Speaking Post-tests

<table>
<thead>
<tr>
<th>t-test for Equality of Means</th>
<th>Sig.</th>
<th>t</th>
<th>df</th>
<th>Mean Difference</th>
<th>Std. Error Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speaking Post-test</td>
<td>.006</td>
<td>-2.741</td>
<td>38</td>
<td>-4.307</td>
<td>2.015</td>
</tr>
</tbody>
</table>

Table 6. Independent Samples t-test for Speaking Post-tests
teachers and students in providing information and content for learning, and the role of school book. Such creative practices encompass Web 2.0 technology enabling users to produce and share content in new ways like user generated content creation and remixing (Lessig, 2008).

Aytan (2016) in his study, tried to distinguish the influence of a listening education program on the listening conducts of prospective Turkish instructors. According to his results, the Listening Education program has produced an understanding in prospective Turkish instructors of listening types and has developed their levels of sensitivity in applying body language. A study has been done about 21st century skills and the workplace through which 1,014 interviews with members of the Gallup Panel aged 18-35 years were implemented (Gallup, 2013). The result emphasized to this matter that most of the skills they utilized at their job were developed out of the classroom. In another study, Motallebzadeh and Kafi (2015) examined “the possible significant effects of project-based instruction on the improvement of Iranian intermediate EFL learners’ awareness of 21st century skills”. Their finding revealed that the students in the experimental group could perform much better than learners in the control group after the treatment on the post-test. Therefore, they found significant effects of project-based instruction on the improvement of Iranian intermediate EFL learners’ awareness of 21st century skills. Tekin and Parmaksiz (2016) investigated the effect of using feature films in video lessons on the improvement of listening skills of students. They found a significant effect on using feature films in video lessons on the improvement of listening skills of students. In another study Pishghadam (2008) has shown that literary discussion in a foreign language learning class can improve the critical thinking abilities of language learners.

References


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