

THE EFFECT OF BLENDED LEARNING ON EDUCATIONAL ACCOUNTABILITY AND CREATIVITY OF IRANIAN EFL LEARNERS

Fatemeh Fazlali

Farhangian University, Iran

correspondence: Fazlaif@cfu.ac.ir

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Abstract

This study investigates the influence of blended learning instruction (BLI) on the educational accountability and creativity of intermediate EFL learners in Iran. Moreover, it aims to identify EFL learners' attitudes toward BLI. To this end, 60 female intermediate EFL learners were selected out of 90 through their performance on a sample of the Oxford Quick Placement Test (OQPT). The participants were assigned into two 30-learner groups (i.e., BLI and control). The first questionnaires were administered as their pre-test to check EFL learners' educational accountability and creativity level before the treatment. During the intervention, the experimental group received instruction through BLI, while the control group received conventional instruction. The second questionnaires were administered as a post-test to check EFL learners' educational accountability and creativity level after the treatment. Moreover, 10 EFL learners were randomly selected from the BLI group to be interviewed. The results of the two separate ANCOVAs indicated that BLI significantly affected EFL learners' educational accountability and creativity. The results of the interviews indicated that the majority of the participants believed that BLI made them more self-directed and autonomous. Similarly, 90% of the learners believed that BLI had changed their views towards self and cooperative learning.

Keywords: blended learning instruction, creativity, educational accountability, EFL learner

Introduction

The explosion of new technologies, accompanied by their frequent uses and utilities, has led to inventive modifications in language instruction and learning (Bukhari & Mahmoud Basaffar, 2019). The use of new technology in schools has contributed to the advent of various delivery methods, including technology-enriched education, web-aided teaching, hybrid education, and online education (Allen & Seaman, 2011). According to Gaol and Hutagalung (2020), of those methods and modes, blended learning (BL), typically regarded as a mixture of online and face-to-face education, has become the most extensively predominant mode of learning in higher education in numerous countries, mostly owing to an expected consequence of the internet and online technology, which have affected instruction and every features of human exertion in the past decades. As aptly



pointed out by Eldeeb (2019), BL can improve the advantages of both online and face-to-face education, whereas it simultaneously reduces the inadequacies of the traditional delivery methods and modes. As rightly avowed by Rasheed et al. (2020), despite the fact that BL application brings numerous aids in higher schooling, it also produces numerous barriers and difficulties for participants. BL is continuously changing; therefore, technology adoption, gaining access to the latest hardware and software, as well as being acquainted with electronic communication apparatuses are some of the difficulties that stakeholders are facing in most developing countries (Gaol & Hutagalung, 2020),

It is worth noting that gaining the anticipated educational outcomes seems to be feasible purely as a result of educational accountability (Pushpanadham, 2020). Accordingly, as Mathison (2010) maintained, all stakeholders in education must be responsible for accomplishing a particular aim. As a result, gaining the anticipated educational outcomes appears to be feasible purely by means of educational accountability, principally student and instructor accountability. Educational accountability basically requires authorizing organizations and institutes to accomplish the appealed results efficaciously (Pushpanadham, 2020). McLaughlin et al. (2014) asserted that several efforts have been conducted to hold pupils accountable for class attendance. Novel educational strategies are supposed to challenge institutes to dynamically engage pupils in attending the classes. New strategies should completely share the evidence for their applications and underline the assumed result (Hawks, 2014). Moreover, pupil engagements in lessons necessitate effective cooperation. Hence, language institutes have to spend an adequate amount of time supporting pupils in learning how to learn in a group effort (White, 2011).

It is incredibly significant for learners to study and exploit language innovatively to develop beyond the primary aims (Hadley, 2003). Several studies (e.g., Davis, 2004; Ferrari et al., 2009; Hadley, 2003; Plucker et al., 2004) have repeatedly reported the connotation of creativity and its considerable influence on language learning. Runco (2004) believed that producing an innovative atmosphere in the classroom improves language learning essentially. However, different scholars and researchers (e.g., Beghetto & Kaufman, 2014; Khany & Tazik, 2017; Simonton, 2012) argued that creativity is not merely being innovative or inventive but also being beneficial or proper. Creativity is to rebel against power or regulations and instructions (Tangaard, 2011). In addition, the prominence of creativity in the educational domain, on the whole, and in the area of language instruction, specifically, has been acknowledged in recent years (Khany & Malekzadeh, 2015; Khany & Tazik, 2017; Mirzaei & Rahimi, 2017; Nosratinia & Zaker, 2015; Richards, 2013; Sternberg, 2015). It is also believed that students' motivation is boosted through creativity (Marashi & Khatami, 2017). Creativity in the classroom includes innovative instruction, high inspiration, and the capability of communicating, encouraging, and concentrating (Ferrari et al., 2009).

Shams (2013) specified that MALL and CALL approaches have been extensively implemented at language institutes, but their efficiency and combination with models of conventional schooling are still vague. This absence of lucidity inspires this investigation to assess the effectiveness of BLI in improving educational accountability and creativity in Iranian EFL settings. Moreover, although there have been substantial investigations on BLI, they have mostly been

done in the West. Even though BLI is currently obtaining consideration, it is still not well-improved, and few investigations (e.g., Bukhari & Mahmoud Basaffar, 2019; Gaol & Hutagalung, 2020; Marashi & Khatami, 2017; McLaughlin et al., 2014; Plucker, et al., 2004; Zhang et al., 2020) have proved the attainment and benefits of BLI in improving educational accountability and creativity in EFL settings in Iran. Therefore, the intricate effect of BLI on EFL learners' educational accountability and creativity and students' perceptions in this regard in the Iranian context of EFL learning remains an issue ripe for investigation. The aim was to partially fill an apparent void in the current bulk of literature by scrutinizing the effect of BLI on EFL learners' educational accountability and creativity in the context of Iran. By boarding this investigation, the main drive was to propose the influence of BLI on EFL learners' educational accountability and creativity and identify Iranian EFL learners' perceptions towards BLI. Accordingly, this investigation attempted to answer the following questions:

- 1) Does BLI have any significant effect on EFL learners' educational accountability?
- 2) Does BLI have any significant effect on EFL learners' creativity?
- 3) What are EFL learners' perceptions towards BLI?

Literature Review

Blended learning

BLI is a novel form of instruction that is affected by methodical modifications happening in the world these days as a result of the incompetence of traditional instruction strategies to recompense for the changes (Harandi, 2015). In the same way, BLI permits pupils to learn anywhere and anytime (Aristovnik et al., 2017). BLI empowers pupils to be involved more in the course of language learning, constructing a positive standpoint towards learning and creating higher results. The concept of BL has been progressively and extensively applied in the last few decades (Mozelius & Rydell, 2017). Nevertheless, as Radia (2019) asserted, there is no agreement among investigators on what precisely BL denotes. It is worth mentioning that in language learning in higher schooling, BL is essentially defined in a different way according to three main standpoints of academics.

First, numerous investigators have regarded BL from the viewpoint of learning procedure. For instance, Zaim and Mudra (2019) provided the most general and understandable classification of BL, which is basically a combination of face-to-face and online education. BL was considered as a mixture of direct learning procedures that were exploiting online applications (Sari & Wahyudin, 2019). Second, other investigators have regarded BL from the viewpoint of instruction procedure. In this respect, Wright (2017) considered BL as a mixture of traditional direct education and online instruction. Others came to an understanding that BL was a mixture of direct and online education to provide effective, well-organized, and flexible education (Zhang et al., 2020). Third, the notion of BL has been regarded from the standpoint of the flipped learning method wherein learners are required to accomplish independent knowledge learning at home earlier than schoolroom time and to devote in-class time to exchanges, demonstrations, and negotiations. Flipped classroom design is considered as one in which learners must read manuscripts and/or consider videos before schoolroom time, and then during schoolroom time; they could take part in the considerate negotiations and

demonstrations (Sulaiman, 2018). The flipped model is regarded as a form of BL due to the fact that it combines learners' self-study outside the teaching space and direct communication with an instructor inside the teaching space (Bakeer, 2018).

According to Boelens et al. (2017), BL settings have four main emblems: the agility of the course, reinforcement of communication, simplification of the learning procedure, and construction of a dynamic education setting. In this study, BL included the application of online resources as well as web-based technologies to corroborate direct EFL education and learning. This characterization is a mixture of clarifications from writers who concentrated on applying up-to-date teaching apparatuses (Zhang et al., 2020), digital as well as Internet tools (Eldeeb, 2019), virtual applications, resources (Sari, 2019) along with a virtual language learning organization system (Sun & Qiu, 2017) to authenticate traditional language teaching in influencing instructive objectives.

Educational accountability

Perie et al. (2007) argued that the notion of educational accountability donates to overall thinking about schooling, maintaining learning, as well as certifying school productivity. Numerous efforts have been made to classify the crucial features of educational accountability. As pointed out by Baker and Linn (2002), decisively 22 canons for educational accountability are characterized into five main categories, namely, public reporting, system components, stakes, testing, and assessment. By the same token, Hanushek and Raymond (2005) itemized five core constituents of accountability classifications comprising objectives, content principles, measurement, outcomes, and reporting. In addition, Carlson (2002) acknowledged five constituents, namely, objectives, indicators, resolutions, recompenses, and authorizations, as well as remedy.

Perie et al. (2007) reported that educational accountability has seven fundamental components: (1) Objective is the rudimentary agenda that characterizes the drives, applications, as well as situations for an answerability system. (2) Presentation Signs denote all elements associated with setting objectives. (3) Design resolution is considered after making use of all presentation signs to make conclusions about educators, institutes, or district efficiency. (4) Consequences comprise offering richly deserved recompenses and accredited authorizations based on the aforementioned objectives. (5) Communication copes with testifying consequences, collaborating objectives, applying modifications, and acknowledging concerns for attaining or not attaining objectives. (6) Support is the concentration of devotion of institute agents as well as policy-makers on inventing a strategy for apportioning considerable assets to evidently underline that all institutes meet their objectives. (7) System assessment, observation, and improvement are slanted towards affording a way for rigorous examination of the systems to certify developments.

A substantial amount of texts has concentrated on planning and assessing an accountability structure in institutes (Arcia et al., 2010). As aptly pointed out by Porter et al. (2004), some models of educational accountability have transported merely distinct pupils into piercing concentration. Nevertheless, in some other prototypes, the main concentration has diverted to institutes. That is, in different cases, instructors and other tutors in institutes have been extremely considered representatives either straightforwardly or not directly. Moreover, other methods

have reserved institutes, pupils, instructors, as well as parents for thoughtful attention. According to Hossain (2017), education providers, policymakers, school managers, tutors, parents, and pupils are responsible for pupils' accomplishments. Similarly, Porter et al. (2004) proposed that accountability prototypes cover an equilibrium of all agents of responsibility. Porter et al. (2004) supposed that holding institutes professionally responsible while pupils do not accomplish their responsibilities is unfair and improper.

Creativity

The notion of creativity is described as the skill or the capability of an individual to determine and scrutinize novel regions to generate or yield new-fangled notions, philosophy, or things such as the preparation or redesigning of what even now occurs (Sarsani, 2005). As noted by Grainger and Barnes (2006), in a world that is basically controlled by technological and scientific inventions, the concept of creativity is a significant component due to the fact that human abilities and individuals' imagination and creativity powers are regarded as the crucial resources in any particular knowledge.

It is said that creative individuals establish advantageous consistency, incite inquisitiveness, identify the characteristics of creative learners, and improve self-assurance, adventure, and self-sufficiency (Runco, 2004). By the same token, Simonton (2012) argued that creative individuals mostly have self-governing and unconventional personality features as well as comprehensive interests, sincerity to new involvements, conspicuous interactive and cognitive flexibility, and display adventuresome performances. Likewise, creativity is the consequence of communication between an individual's knowledge, character, and abilities. Creativity in the schoolroom comprises inventive education, high inspiration, the capability to talk and listen, as well as the capacity to attention and stimulate (Ferrari et al., 2009). As pointed out by Runco (2004), producing inventive circumstances in the schoolroom will totally enrich learning and instruction. Likewise, some academics argued that instructors should support learners in nurturing their creativity and making them ready for an unpredictable future (Vygotsky, 2004). Lin (2011) specified that nurturing creativity with the support of education is to help the persons' improvement in creative attributes to deal with everyday challenges and difficulties, to support their requirement for self-actualization, and to improve their capabilities for future accomplishment.

As Akyıldız and Çelik (2020) asserted, creative individuals are well-informed, non-conformist, risk-takers, and thoughtful. Richards (2013) avowed that creative individuals always support their learners to be efficacious by applying different techniques, strategies, resources, and accomplishments that can bring about creative thinking. In the same way, Akyıldız and Çelik (2020) affirmed that creative individuals always favor student-centeredness and seek to find creative techniques to inspire their learners. Similarly, creative individuals are believed to be flexible in regulating or adjusting their education instantaneously once something fails (Richards, 2013).

Method

Population and sample

Ninety female intermediate Iranian EFL learners within the age group of 18 to 28 attending Safir English Language Academy in Tehran were selected based on convenience sampling. Using the Oxford Quick Placement Test (OQPT), 60 of them were chosen to participate in the study. The selected participants (n=60) were randomly assigned into BLI and control groups of 30 participants each. Additionally, out of 30 EFL learners in the blended learning instruction group, 10 EFL learners were interviewed by the researcher a week after the intervention. All participants have given their consent to be involved in this study.

Instruments

Oxford Quick Placement Test (OQPT)

The OQPT, a widely used language proficiency test, was administered during the participant selection process. It has 60 items in different formats (e.g., multiple-choice pictorial, cloze text, grammatical and vocabulary multiple-choice items). It takes around 45 minutes to complete this test. The reliability of OQPT was estimated to be 0.91.

Learner Accountability in English Learning in Iran Questionnaire (LAELIQ)

The LAELIQ developed by Zarei et al. (2019) was used. The LAELIQ comprises 46, 5-point Likert scale items aimed to assess the participants' educational accountability level. The LAELIQ has seven main modules, i.e., performance indicators, consequences, goals, communication, design decisions, system evaluation, monitoring and improvement, and support. The potential range score was from 46 to 230. It takes around 25 minutes to complete the LAELIQ. The LAELIQ reliability was calculated to be 0.88.

Abedi-Schumacher Creativity Test (ACT)

The Persian version of ACT developed by O'Neil et al. (1992) was used to assess the participants' creativity level. The ACT comprises 60 three-point Likert scale items. The ACT has four main traits underlying inventive thinking, i.e., Flexibility, Fluency, Originality, and Elaboration. The potential range score was from zero to 120. It takes around 30 minutes to complete the ACT. According to Marashi and Dadari (2012), the reliability of ACT was found to be 0.71. Similarly, the ACT reliability was estimated to be 0.80.

Semi-structured interview

An interview was conducted with 10 EFL learners to recognize their perceptions concerning the blended learning instruction. Two authority experts viewed the interview questions (i.e., two questions). The interviews were in Persian and took about 10 minutes for each student.

Procedure

After selecting the participants (n=60) based on their performance of OQPT, they were randomly assigned as experimental group (i.e., BLI) and control group, each including 30 students. Before having any treatment, to check EFL learners' educational accountability and creativity level, the students in both groups were

asked to complete the LAELIQ and the ACT as their pretest. Their administration took about 55 minutes.

Data collection

During the treatment, each group received a different mode of treatment. That is, during the intervention, the experimental group received instruction through BLI, while those in the control group received conventional instruction. The participants in the experimental group were notified about BLI and how to properly apply online learning. Using Moodle, an online learning web was devised, and pupils in the BLI group were requested to register themselves by creating an account on the aforementioned web. It is noteworthy that they were requested to log in by utilizing their own account to pursue learning accomplishments. In this study, online learning was essentially designed to support face-to-face education. As stated earlier, the participants in the control group received no BLI and merely received conventional instruction. It is worth noting that the participants attended 12 sessions of instruction. Both groups were taught by the teacher researcher. Once the treatment was over, the students in both groups were requested to fill in the LAELIQ and the ACT as their posttest. Moreover, 10 EFL learners were randomly selected from the experimental (i.e., BLI) group and interviewed by the researcher.

Data analysis

In this study, the mean and standard deviation were calculated for all tests together with their reliabilities. To answer the first question (*Does BLI have any significant effect on EFL learners' educational accountability?*), an ANCOVA was employed. Concerning the second question (*Does BLI have any significant effect on EFL learners' creativity?*), an ANCOVA was run. Regarding the last question (*what are EFL learners' perceptions towards BLI?*), the frequency analysis and percentage of the recurring themes of EFL learners' responses were identified.

Findings and Discussion

Findings

Table 1 displays the descriptive statistics for the educational accountability and creativity pretests and posttests.

Table 1. Descriptive statistics

| | Group | N | Mean | Std. Deviation | Skewness Statistic | Std. Error |
|---------------------------------------|--------------|----|--------|----------------|--------------------|------------|
| Educational Accountability (Pretest) | Control | 30 | 111.50 | 6.05 | -.31 | .42 |
| | Experimental | 30 | 110.70 | 3.03 | -.17 | .42 |
| Educational Accountability (Posttest) | Control | 30 | 118.73 | 6.62 | .06 | .42 |
| | Experimental | 30 | 145.56 | 8.64 | .13 | .42 |
| Creativity (Pretest) | Control | 30 | 69.56 | 2.02 | .52 | .42 |
| | Experimental | 30 | 69.66 | 2.18 | -.42 | .42 |
| Creativity (Posttest) | Control | 30 | 73.60 | 4.98 | -.15 | .42 |
| | Experimental | 30 | 86.00 | 4.59 | -.22 | .42 |

The first question attempted to examine whether BLI had any significant effect on Iranian EFL learners' educational accountability. As a result, an ANCOVA was run. Table 2 displays the results of Levene's test.

Table 2. Levene's test of equality of error variances (1)

| F | df1 | df2 | Sig. |
|-----|-----|-----|------|
| .29 | 1 | 58 | .58 |

Moreover, Table 3 below displays that the interaction (i.e., Group* Pretest) is $0.06 > 0.05$, hence displaying that the assumption of regression slopes homogeneity is met.

Table 3. Tests of between-subjects effects (1)

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------------|-------------------------|----|-------------|-------|------|
| Corrected Model | 11012.19 ^a | 3 | 3670.73 | 63.69 | .00 |
| Intercept | 622.13 | 1 | 622.13 | 10.79 | .00 |
| Group | 119.54 | 1 | 119.54 | 2.07 | .15 |
| Pretest | 97.33 | 1 | 97.33 | 1.68 | .19 |
| Group * Pretest | 209.57 | 1 | 209.57 | 3.63 | .06 |
| Error | 3227.45 | 56 | 57.63 | | |
| Total | 1062057.00 | 60 | | | |
| Corrected Total | 14239.65 | 59 | | | |

a. R Squared = .77 (Adjusted R Squared = .76)

Having checked the main assumptions, an ANCOVA was run. The results indicated that the pretest scores did not turn out to be significant ($F = 0.03$, $p = 0.84 > 0.05$), therefore suggesting that before the BLI, no difference existed between the groups concerning their educational accountability.

Table 4. Tests of between-subjects effects (2)

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------------|-------------------------|----|-------------|--------|------|
| Corrected Model | 10802.61 ^a | 2 | 5401.30 | 89.57 | .00 |
| Intercept | 1751.80 | 1 | 1751.80 | 29.05 | .00 |
| Group | 10749.03 | 1 | 10749.03 | 178.26 | .00 |
| Pretest | 2.20 | 1 | 2.20 | .03 | .84 |
| Error | 3437.03 | 57 | 60.29 | | |
| Total | 1062057.00 | 60 | | | |
| Corrected Total | 14239.65 | 59 | | | |

a. R Squared = .75 (Adjusted R Squared = .75)

As depicted in Table 4, the findings designated that there existed a significant difference ($F = 178.26$, $p = 0.00 < 0.05$) between the mean scores of the groups on the educational accountability post-test after removing the influences of their pretest. That is, the groups did perform significantly differently from each other; that is, the students in the BLI group ($M = 145.56$, $SD = 8.64$) outperformed those in the control group ($M = 118.73$, $SD = 6.62$) concerning their educational accountability. As a result, BLI had a significant effect on the educational accountability of Iranian EFL learners.

The second question attempted to scrutinize whether BLI had any significant effect on Iranian EFL learners' creativity. Hence, an ANCOVA was run. Table 5 displays the Levene's test results.

Table 5. Levene's test of equality of error variances (2)

| F | df1 | df2 | Sig. |
|-----|-----|-----|------|
| .02 | 1 | 58 | .88 |

Additionally, Table 6 displays that the interaction (i.e., Group* Pretest) is $0.11 > 0.05$, hence displaying that the assumption of regression slope homogeneity is met.

Table 6. Tests of between-subjects effects (3)

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|------------------------------|-------------------------|----|-------------|-------|------|
| Corrected Model | 2397.94 | 3 | 799.31 | 36.05 | .00 |
| Intercept | 615.94 | 1 | 615.94 | 27.78 | .00 |
| Group | 36.94 | 1 | 36.94 | 1.66 | .20 |
| Pretest | 41.88 | 1 | 41.88 | 1.88 | .17 |
| Group * Pretest ¹ | 56.42 | 1 | 56.42 | 2.54 | .11 |
| Error | 1241.65 | 56 | 22.17 | | |
| Total | 385722.00 | 60 | | | |
| Corrected Total | 3639.60 | 59 | | | |

a. R Squared = .65 (Adjusted R Squared = .61)

Having checked the key assumptions, an ANCOVA was run. The results indicated that the pretest scores were not significant ($F = 1.54, p = 0.21 > 0.05$), henceforth indicating that before the BLI, no difference existed between the groups concerning their creativity.

Table 7. Tests of between-subjects effects (4)

| Source | Type III Sum of Squares | df | Mean Square | F | Sig. |
|-----------------|-------------------------|----|-------------|--------|------|
| Corrected Model | 2341.52 | 2 | 1170.76 | 51.40 | .00 |
| Intercept | 591.89 | 1 | 591.89 | 25.99 | .00 |
| Group | 2318.79 | 1 | 2318.79 | 101.82 | .00 |
| Pretest | 35.12 | 1 | 35.12 | 1.54 | .21 |
| Error | 1298.07 | 57 | 22.77 | | |
| Total | 385722.00 | 60 | | | |
| Corrected Total | 3639.60 | 59 | | | |

a. R Squared = .64 (Adjusted R Squared = .63)

As is evident in Table 7, the results designated that there existed a significant difference ($F = 101.82, p = 0.00 < 0.05$) between the mean scores of the groups on the creativity post-test after removing the influences of their pre-test. That is, the groups did perform significantly differently from each other; that is, the pupils in the BLI group ($M = 86, SD = 4.59$) outperformed those in the control group ($M = 73.60, SD = 4.98$) concerning their creativity. Consequently, BLI had a significant effect on the creativity of Iranian EFL learners.

The third question attempted to inspect the perceptions of Iranian EFL learners towards BLI. As stated earlier, 10 EFL learners were interviewed to specify their attitudes towards BLI. After transcribing answers and performing content analysis, the recurring themes were tabulated in Table 8.

Table 8. EFL learners' attitudes on BLI

| No. | Theme | Frequency | Percentage |
|-----|---|-----------|------------|
| 1 | BLI makes learners more self-directed and autonomous | 10 | 100 |
| 2 | BLI has positively changed our view towards self and cooperative learning | 9 | 90 |
| 3 | BLI makes us more serious and thoughtful about active learning | 8 | 80 |
| 4 | BLI supports us to save both energy and time | 7 | 70 |
| 5 | BLI is a great method to educate the masses | 6 | 60 |

As indicated in Table 8, all the respondents (100%) stated that BLI made them more self-directed and autonomous. Likewise, 90% of the interviewees believed that BLI had positively changed their view toward self and cooperative learning. Furthermore, 80% of the respondents stated that BLI made them more serious and thoughtful about active learning. Similarly, 70% of the interviewees believed that BLI supported them to save their energy and time. Additionally, 60% of the respondents stated that BLI was a great method to educate the masses.

Discussion

The first aim was to inspect the potential effect of BLI on the educational accountability of Iranian EFL learners. The findings revealed that BLI improved the educational accountability level of Iranian EFL learners. The findings of the first question are in agreement with those of Aalinezhad et al. (2021), Farivar and Rahimi (2015), and Meri (2012), who concluded that BLI had a significant influence on language students' self-sufficiency in the context of Iran. The finding of the first question is also reinforced by the numerous outcomes of research displaying that BLI is an effective model of learning that has a positive effect on learners' accountability, autonomy, and self-sufficiency (Bakeer, 2018). The result can be justified by the fact that BLI simplifies the process of learning mainly through contributing to pupils' accountability and self-regulation as well as involving them in the organization, time management, development of self-efficiency, management of numerous learning events, along with the application of technology to support education (Boelens et al., 2017). Consequently, this setting supports the pupil with planning, aim-setting, management, adaptation, assessment, and educational accountability in the learning process.

Another explanation for the results is that BLI permits EFL pupils to cooperate and collaborate while also backing them in befalling self-directed pupils with high levels of self-sufficiency and autonomy (Khadjieva & Khadjikhanova, 2019). The result can also be justified by the fact that BLI brings about psychological security improvement, increases internal inspiration, produces cognitive contribution, enriches autonomy, self-sufficiency, and accountability, provides appraisal chances, and finally provides real learning conditions (Boelens et al., 2017). BLI is believed to have a positive influence on pupils' presentation, individuality, and accountability and also facilitate their sense of control over language learning (Boyle et al., 2003).

The second aim was to scrutinize the potential influence of BLI on the creativity of Iranian EFL learners. The results showed that BLI improved the creativity level of Iranian EFL learners. The results are in agreement with those of

Banihashem et al. (2014), Miskiah et al. (2020), and Resien et al. (2020), who concluded that BLI had a significant positive influence on the creativity of language learners. Moreover, the findings of the second question are also consistent with those of Yeh et al. (2011), who stated that BLI had a significant influence on the improvement in creativity education of individuals. The finding can be justified by the joyfulness of language learning through BLI since EFL pupils could learn and study while enjoying themselves, so they were free to communicate their creativity. Learners who have higher levels of creativity are better capable of classifying disappointments and problems, perceive a failure as a learning occasion, and, therefore, improve, fulfill, and convey innovative thoughts and use new technologies to overcome learning inconveniences (Griffin et al., 2012). Moreover, Susan and Chris (2015) contended that BLI can make pupils more creative as well as more active. This is in agreement with the view of Paavola et al. (2004), affirming that creativity is a procedure of constructing information as well as learning by means of novel equipment or invented media. Furthermore, Resien et al. (2020) acknowledged that BLI could educate pupils to be more self-governing in improving inventiveness in education with appropriate training and to do coursework with more eagerness via a stimulating demonstration. Pupils who are inventive will be better capable of solving actual difficulties adaptively for the reason that pupils can become aware of more than one alternative explanation (Švecová et al., 2014). Resien et al. (2020) asserted that pupils in BLI are managed and requested to be able to create their educational material with the support of exploited online equipment. In BLI, the contribution of pupils can be vigorously observed by the educator, so pupils will gradually comprehend the issues of new technologies with the purpose of producing better learning results (Resien et al., 2020).

The third aim was to identify the perceptions of Iranian EFL learners towards BLI. The outcomes of the interviews specified that all the respondents (100%) specified that BLI made them more self-directed and autonomous. By the same token, 90% of the interviewees believed that BLI had positively changed their opinion towards self and cooperative learning. Additionally, 80% of the respondents maintained that BLI made them more serious and thoughtful about active learning. In the same way, 70% of the interviewees believed that BLI supported them to save their energy and time. Furthermore, 60% of the respondents stated that BLI was a great method to educate the masses. The results are in harmony with those of various investigations (e.g., Ebadi & Ghuchi, 2018; Richardson & Swan, 2003; Swan et al., 2000; Yaghoubi et al., 2008).

Conclusion

This investigation scrutinized the potential influence of BLI on learners' educational accountability and creativity in the Iranian EFL context. Based on the findings, it was concluded that BLI improved educational accountability as well as the creativity level of EFL learners. The results of the interviews specified that EFL learners had a positive attitude towards BLI and agreed that BLI made them more self-directed and autonomous and positively changed their opinion towards self and cooperative learning. Based on the results, it is advisable to bring together educational teacher training meetings as well as methodological BLI training sittings. BLI can be introduced to EFL educators who desire to enrich their

instruction abilities and professions while staying in touch with novel technology and investigation discoveries. Furthermore, EFL teachers should inform their students of the significance of BL and the possible effect BL might have on their educational as well as creativity levels. EFL pupils can benefit from BLI since it maximizes their educational accountability and creativity level. BLI was found to improve student's educational accountability and creativity by giving more accountability to the student, therefore moving away from old-fashioned instructor-centered classes. Hence, both pre-service and in-service instructors are recommended to learn about the benefits of BLI along with how to implement BLI appropriately in their classrooms. Accordingly, various workshops and extra courses should be provided to familiarize EFL educators with the benefits of BLI. It is worth noting that the workshops and extra courses should include BLI methods and philosophies, along with techniques and sufficient preparation in the use of various forms of software and social media. The findings make it possible for material developers and syllabus designers to provide lesson plans as well as policies that incorporate BLI into education centers' curricula, helping educators to enrich their teaching abilities, among other ELT features.

Although this investigation corroborated the positive influence of BLI on educational accountability and the creativity level of learners in the EFL context, its limitations offer various opportunities for future investigation. First, due to cultural and local limitations, this study benefited from females only. Therefore, it is recommended that this study be replicated with the same number of females and males so that the potential influence of gender on the findings is eradicated. Second, attributable to practical reasons, the participants who were studying in language institutes were taken into account, not those in universities or schools. Accordingly, this study could be repeated in a different context (i.e., university or public school) to determine whether identical findings would be accomplished in other settings. Finally, in this study, the influence of BLI on merely educational accountability and creativity was examined. EFL investigators could further explore the influence of BLI on other personal and psychological aspects of language learners in the EFL context.

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