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Exploring Autonomous Learning of English Language through Digital Literacy: A Study in Pakistani Context

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Abstract: *The purpose of this mixed-method design research is to (1) investigate the factors that affect students to regulate their autonomous learning of language through digital literacy. (2) find out how digital literacy can be used to create an equal opportunity for all students to be successful autonomous language learners, and (3) analyze to what extent digital literacy helps students to improve their academic achievement. The quantitative data were analyzed by using descriptive statistics, whereas the qualitative data was processed employing thematic analysis. The outcomes indicated that the students participated in many out-of-class English learning practices. The results of interviews reflected the results of the questionnaires, with learners reporting both external and internal reasons that affected their decision to switch to autonomous learning of English.*

Key Words: Autonomous Language Learning, Constructivism, Computer Assisted Learning, Digital Literacy, Learner's Autonomy

Introduction

Paul Gilster (1997: 1), in his book Digital Literacy, first published the term "digital literacy" and defined it as the "ability to understand and use information in multiple formats from a wide range of sources when it is presented via computers".

Digital literacy has been defined as the individual and social abilities required to productively interpret, direct, share, and generate meaning in the flourishing span of digital communication channels (Dudeney et al., 2013).

Little (1994) featured the fact that autonomous learning does not mean a lack of support from the instructor's part yet it is the foundation of collaboration between learner and instructor. It also implicit the eternal motivation offered by their instructors to learners, and thus a situation of inter-dependence between them.

Digital literacy is becoming enormously significant (Riddle, 2015), and the extensive use of digital media for the acquisition of language is emphasized in a multiple publications (Godwin-Jones, 2016). In technology-enhanced language learning (TELL) contexts, learners of language are also supposed to develop language learning practices and digital literacy competencies.

In digital environments, a learner's enthusiasm is necessary to succeed (Hubbard, 2013).

Research Objectives

The current study focuses on the following three objectives.

1. To investigate the factors that affect students to regulate their autonomous learning of language through digital literacy.
2. To find out how digital literacy can be used to create an equal opportunity for all students to be successful in autonomous language learning.
3. To analyze that to what extent does digital literacy help students to improve their academic achievement.

Research Questions

This study is meant to answer the following questions:

1. How does digital literacy help to create an equal opportunity for all students to be successful in autonomous language learning?
2. What are the factors that affect students to regulate their autonomous learning of language through digital literacy?
3. How far does digital literacy help students to improve their academic achievement?

Literature Review

Learners' self-directed learning of language through digital literacy without the intervention of any instructor is a multidimensional occurrence with many distinguishing traits, dimensions, and interconnections. Autonomous-learning is a contemporary theory of learning founded on constructivism theory. Constructivism promotes the proactive role that individuals play in the process of learning, along with humanistic as well as cognitive psychology, supports autonomous language development. It is a student-centered learning framework which focuses on learning context and cooperative learning.

Holec (1979) regarded learner autonomy seeing that "the competence to take charge of one's own learning", which "is not inherent, but should be earned by formal learning or natural strategies, i.e. in a reasonable and systematic manner," and that "to govern an individual's learning is to be responsible for each and every decision about certain learning features."

To be digitally literate, Gilster (1997) advocates the belief, one should not only know how to locate facts from the internet but should also have the skill to comprehend and accumulate knowledge from various digital sources or publications. Saadatmand and Kumpulainen (2012) reported, if a learner learns in online platforms and networked environments then it demands top level self-regulation skills and competencies to handle the opportunities of evolving learning form the learners.

Trinder (2016) conducted a study where he surveyed advanced EFL learners in Austria on their technology use and discovered that 38 percent of learners used social media on a regular basis while 20 percent used it very often. It was reported in the study that 70 percent of the participants watch video clips, and online movies every day or frequently. In the case of disciplinary technologies, 94 percent of respondents utilized online dictionaries on their daily basis; however 5 percent of these respondents visited learning websites of language very frequently.

His study found that foreign-language learners typically employ specialized language-learning devices and applications, including online dictionaries, drills, translation tools, and practice sites, while also utilizing authentic language sources, for instance, online video and audio resources.

The researcher has recognized how students are engaged with these diverse digital platforms and supplies in their self-regulated, self-initiated acquisition beyond the walls of the classroom, in order to mapping the topography of learners' utilization of technology for learning language outside of the classroom.

DenyzeToffoli, Laurent Perrot (2016) elaborated the relationship between learner autonomy, L2 proficiency, L2 use in relation to autonomy, and developing L2 proficiency and autonomy in association with digital literacy in pedagogy.

Li, Snow and White (2015) conducted research on the preferences of 623 sixth-eight graders in the United States for dissimilar technologies in developing literacy as well as language. In this study they discovered that among learners YouTube was most beneficial due to its potential in developing the good quality of vocabulary.

Qunyan Maggi Zhong(2018), while using a case study method analyzed qualitatively how a learner engages with technology-mediated environments met his learning goals and needs, and how his autonomy evolves through digital literacy in the context of New Zealand. And researcher's results verified the argument that the belief of learner's autonomy is fluid and vigorous, proposing that apart from the learner's environmental factors, psychological factors, e.g. the guidance from the instructor and learning conditions also play an analytic role in the formation of different aspects of learner's autonomy.

Research Methodology

This study is comprised of mixed methods including both qualitative method and quantitative method to meet the objectives of the research. The researcher used data collection tools such as questionnaires, interviews (semi-structured) to collect the required data from the target audience. The students of Ghazi University were the population of the study. While keeping in view the feasibility of infrastructure, facilities, and easiness for the researcher, the study is limited to the students of BS level of the English Department, Ghazi University Dera Ghazi Khan. The researcher collected the sample consisted of 100 students through simple random sampling where every student of the BS class had an equal chance of being selected. The data collected through questionnaires, interviews, and focus group was analyzed by IBM SPSS (Statistical Package for the Social Sciences) Statistics for Windows, Version 21.0.

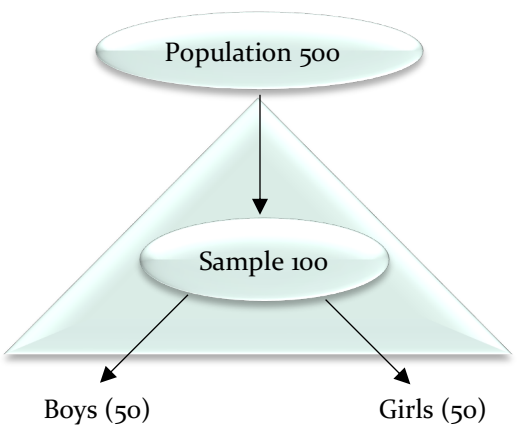

Figure 1

Students (n=100) enrolled in semesters of the BS degree in English Literature and Linguistics were involved in the quantitative phase of the study. In order to attain a gender-balanced sample of the entire population, participants from each semester were categorized into two groups: male (n=50) and female (n=50). Both the male and female from every semester were selected arbitrarily employing simple random sampling. The participants were aged from 19 to 26 years old having varying proficiency levels of English. Participants (n=6) were selected for the next stage of the research which was qualitative in nature, from the same sample who expressed their willingness to be a part of an interview on the consent forms.

Findings and Results

Questionnaire

The results and findings of the questionnaire are presented in charts. As the questionnaire was developed into five main sections, consequently results are given in five main sections respectively i.e.

- Section A: Demographic background
- Section B: Access to internet and gadget
- Section C: Skills Practiced through digital literacy
- Section D: Effectiveness of autonomous learning
- Section E: Effectiveness of digital literacy

Section A: Demographic Background

The age group of respondents varied from 19 to 26. Results showed that 9% of the respondents were 19 years old, 6% o f the respondents were 20 years old, 12% of them were 21 years old, 19% of them were 22 years old, 24% of all respondents were 23 years old, 14% of them were 24 years old, 9 % of the respondents were reported to be 25 years old, and 7% of the respondents reported to be 26 years old. The researcher divided the age of respondents into two group i.e. group A (19-22) which makes up 46% of the whole sample of the study, and group B (23-26) which makes 54% of the whole sample of the study.

In order to attain a gender-balanced sample of the entire population, participants from each semester were categorized into two groups: male and female. Regarding this, the male and females from every semester were selected arbitrarily in accordance of their willingness. Same is the case with both age groups i.e. age group A (19-22) and age group B (23-26).

Both age and gender has the strong connection with further research to show whether digital literacy provides an equal opportunity to all students towards being successful autonomous language learner in context of Pakistan.

Section B: Access to the Internet (AI) and Gadget

98 % of the respondents reported their easy access to the internet while 2% of them reported that they don't have an easy access to the internet. But these 2% reported that they still accommodate to get the internet to make their autonomous learning of language possible.

Among all 81% of respondents reported to use "Mobile Phones", 2% students reported that they use only "Laptop", while 17% of the respondents reported that they use "Both" of them (mobile phone and laptop) for the purpose of their autonomous learning of the English language. The results show that all the respondents of the study have their digital devices to support their autonomous learning through digital literacy.

Furthermore, 37% of the respondents reported “YouTube” as their main source of learning, in which 21% were girls and 16% were boys and among which 18% were from age group A (19-22) and 19% were from age group B (23-26). While 25% of respondents mentioned they watch movies for language

learning purposes, among which 12% were girls and 13% were boys, and in which 12% were from age group A (19-22) and 13% were from age group B (23-26). So it is evident that boys and age group B (23-26) watch English movies more for language learning purposes than girls, and age group A (19-22). 17% of the respondents reported that they read different blogs to be fluent in English, in which 9% were girls and 8% were male, among which 7% were from age group A (19-22) and 10% were from (23-26), which clearly shows female and age group B (23-26) prefers blog reading for autonomous learning. While 21% of them mentioned other channels for English learning purposes, among which 8% were female and 13% were male, in which 9% were from age group A (19-22) and 12% were from age group B (23-26). Hence boys and age group B (23-26) prefer some other channels for their autonomous learning of English and they might be news channels, mobile apps or role playing games. These findings show that no matter both genders and age groups vary in their choice of channels of learning but one thing is similar these language learners are enthusiastic to learn English as a foreign language.

Section C: Skills Practiced (SP) through Digital Literacy

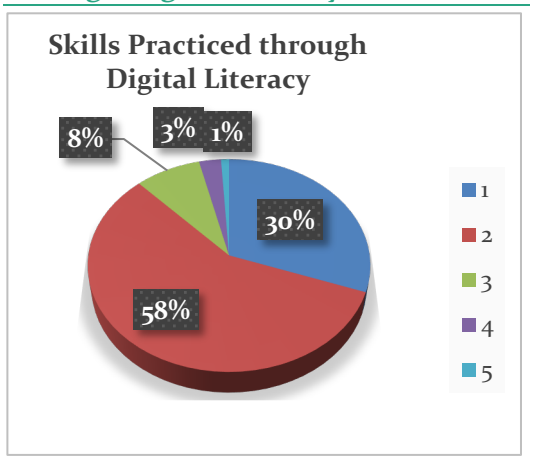

Figure 2: Skills Practiced through Digital Literacy

In this figure 1, 30% of the respondents marked 'strongly agree' against the statements of section C and 58% of the respondents marked 'agree' against all the statements. While at the other hand, 3% of the respondents marked 'strongly disagree' and 1% of the respondents marked 'disagree' against all the statements of language skills practiced through digital literacy. Whereas 8% of the respondents of the study marked 'neutral' to show no personal preference for the language skills practiced through digital literacy.

Now by combining both the percentages of strongly agree (30%) and agree (58%), it makes 88% of the whole sample who responded optimistically regarding the skills practiced through digital literacy in their autonomous learning of English. Among which (88%) 12.75% were girls and 45.25% were boys, which declares that boys have been benefited more than girls for practicing their language skills including grammar, vocabulary, pronunciation and fluency. Furthermore, among 88% of the respondents, 44% of the respondents were from age group A which varies from 19 to 22, and 43.75% of the respondents were from age group B which varies from 23 to 26. Hence due the minor difference among age groups, it is obvious that both age groups are equally interested to improve their language skills.

By combining both strongly disagree (1%) and disagree (3%) makes a total 4% of the whole sample, who responded negatively against the statements of Section C. Among which (4%) 2.5% were girls and 1.25% were boys, which is not a considerable difference in comparison of the percentage of strongly agree and agree which is 88%.

While among 8% of the respondents who reported neutral, 9% were girls and 8% were boys plus in reference to age groups, 7% were from age group A (19-22) and 9% were from age group B (23-26) who didn't favor either side of the likert scale.

Hence, from the results, it is obvious that autonomous learning of English through digital literacy has benefited the respondents of the study to improve their grammar, vocabulary, fluency and pronunciation. And it mainly has benefited the male respondents of the study.

Section D: Effectiveness of Autonomous Learning (EAL)

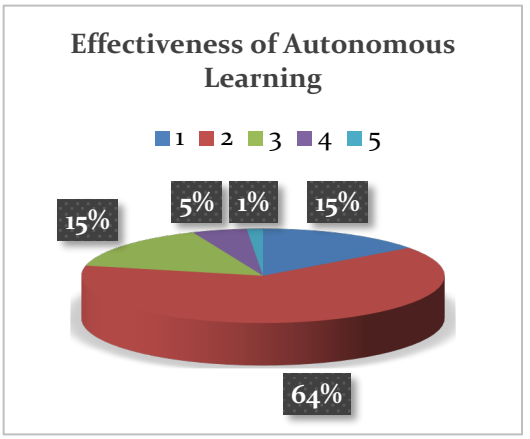

Figure 3: Effectiveness of Autonomous Learning

In the figure, 2 numbers from 1 to 5 are strongly agree, agree, neutral, disagree and strongly disagree respectively. The figure 2 illustrates the division of the percentage of the perceptions of language learners about their autonomous learning of the English language through digital literacy. As shown in the figure 2, 64% of the respondents showed their confidence in their autonomous learning of the English language through digital literacy. 15% of the respondents ticked strongly agree to show their confidence in their autonomous learning of the English language through modern technology. Contrastingly, 5% of the participants reported disagree for the statements of the effectiveness of autonomous learning and 1% of the respondents reported strongly disagree to show their perception concerning the effectiveness of their autonomous learning of English language, while 15% of the respondents of the study ticked neutral.

By combining both the percentages of strongly agree (15%) and agree (64%) which makes 79% of the whole sample shows motivation and confidence regarding the autonomous learning of English through digital literacy of the learners. Among which 38% were girls and 40.5% were boys who agreed for the effectiveness of autonomous learning of the English language through digital literacy. However in terms of age groups, 38% of the respondents were from age group A (19-22) and 40.5 % of the respondents were from age group B (23-26).

Thus results show that the percentage of boys is higher than the percentage of girls regarding their confidence about the effectiveness of autonomous learning of English via modern technology. And age group B (23-26) is very efficient in their self-directed acquisition of English as a second language as the percentage of their perception of the effectiveness of autonomous learning of language via digital literacy is higher than group A (19-22).

And by combining both strongly disagree (1%) and disagree (5%) it makes the total 6% of the whole sample of the study who disagreed for the benefits of autonomous learning of English, among which 3.5% were girls and 2.5% were boys. Concerning the age of the respondents, 3.5% of the respondents were from age group A (19-22) and 2.5% of the undergraduates were from group B (23-26). Although the differences of age groups and gender are not significant to stand out to make a difference, 15% of the respondents of the study ticked neutral. Hence, the researcher has found out high rates of positive responses of the respondents towards the productiveness of autonomous learning with the use of technology.

Section E: Effectiveness of Digital Literacy (EDL)

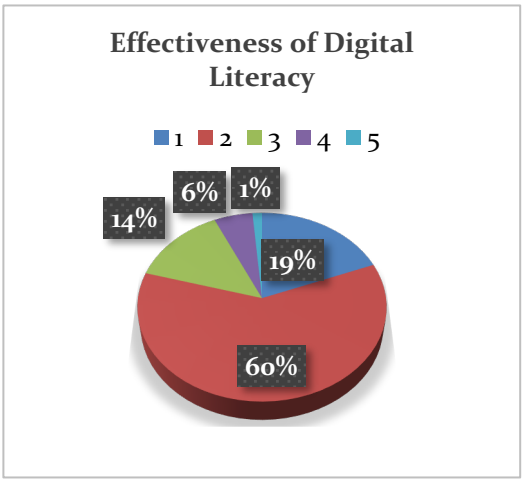

Figure 4: Effectiveness of Digital Literacy

In figure 3 numbers from 1 to 5 are strongly agree, agree, neutral, disagree, and strongly disagree. As shown in figure 3, 19% of the language learners marked strongly agree to show their attitude towards the effectiveness of digital literacy and 60% of the respondents marked agree for the statements of the effectiveness of digital literacy which is a higher percentage among all the percentages of this section. Whereas, 14% of the respondents of the study marked their attitude neutral, towards the productiveness of digital literacy for the purpose of learning English autonomously as a second language.

At the other hand, 6% of the respondents of the study marked disagree and only 1% of the respondents marked strongly disagree for the statements of the effectiveness of digital literacy, which is the least percentage among all the percentages of this section.

By combining both the percentage of strongly agree (19%) and agree (60%) the sum of both percentages become 79% of the whole sample of the study who showed their optimistic attitude towards productiveness of digital literacy for the purpose of autonomous learning. Among these 38% were girls and 41% were boys whereas with the reference of age, 39% of the participants were from group A of age (19-22) and 40% of the respondents were from age group B (23-26). It highlights that boys have been benefited more from the productiveness of digital literacy than girls as their percentage is higher than the total percentage of girls. And the minor difference has been found in terms of the age of the respondents.

Now by combining both the percentages of disagree (6%) and strongly disagree (1%) which makes the 7% of the respondents of the whole sample. Among which 4.5% were girls and 2.5% were boys and in terms of their age groups, 4% of the respondents were from the age group A (19-22) and 2.5% of the respondents were from the age group B (23-26). Consequently, it is evident that percentages of both girls and age group A (19-23) are slightly higher than boys who disagreed with the statements of effectiveness of digital literacy.

Whereas among 14% of the respondents who marked neutral, 15% of the respondents were girls and 13% were boys, and while concerning the age groups, 13% of the respondents were from age group A (19-22) and 14% of the respondents were from age group B (23-26) who could not identify their attitude towards the effectiveness of digital literacy.

The researcher has discovered from the results that digital literacy has helped students to be more efficient in terms of increasing their knowledge, skills to explore the internet for the purpose of learning, and to make them more autonomous learners. The researcher also has found out that after being an autonomous learner with the help of digital literacy, boys and the age group (23-26) has been benefited more.

The Interviews

No one else identifies their autonomous learning practices better than that of the

learners themselves. Six students were interviewed in a semi-structured setting to debate the subject matter of learner autonomy from their own experiences. Four questions were asked to each of the participants to express their point of views on learner autonomy generally along with in what manner these learners respond to self-directed learning of English specifically. The given table 1 provides a summary of the questions as well as the students' responses:

Table 1. Summary of Interview

Questions	Answers
1. What are the factors that motivated you to switch to autonomous learning of the English language through digital literacy?	▪ Need and scope of English ▪ Interest in English ▪ Self grooming, self-confidence, self-evaluation ▪ Competition among peers ▪ Technological environment ▪ Lack of skilled teachers
2. Why do you prefer E-learning to improve your academic achievement?	▪ Helps in making concepts clear with digital images and symbols. ▪ Develops critical thinking ▪ More resources than printed texts. ▪ Visual media strengthens the interpreting content ▪ Attain facts instantly ▪ Convenient to use anytime.
3. How does digital literacy provide an equal opportunity to all students to be successful language learner?	▪ Easy access to technological devices ▪ Personalized learning ▪ Provide courses full time ▪ Equality of being able to reach a wide range of learning resources
4. What do you think Corona has done a favor to you to make your autonomous learning effective (before and after effects of learning in the corona)?	▪ Yes, because ▪ Integration of technology into learning practices. ▪ Corona revealed the importance of digital literacy that promotes the effectiveness of autonomous learning. ▪ Pre- Corona: Dependent learners. ▪ Post Corona: Independent learners.

Findings

The responses of all interviewees were not contradictory, so it was easy for the researcher to reach the findings. Students' reviews on the factors that affected them to switch to autonomous learning through digital literacy included, limited resources of printed writings, need and scope of English, interest in English, self-grooming, self-confidence, self-evaluation, competition among peers, technological environment, lack of skilled teachers, freedom of choice, for gaining more knowledge. 83% (n=3 girls, n=2 boys) individuals reported that English learning opportunities were insufficient. The students believed that there were very few hard-copy publications accessible and that their classmates were not willing to learn collaboratively. Researchers have indicated that learning resources are a crucial component of establishing learner autonomy in this respect. Learning resources, thus according Zhao and Chen (2014), play a significant part in the development as well as maintenance of learner autonomy, particularly as they inspire learners to learn English.

It was found from the responses that 50% (n=3) of the participants who were all girls stated that English major undergraduates take on more responsibility but also indulge in to more autonomous English learning activities outside of class, without their teacher's assistance than that of the other students. From the responses it is obvious that taking the liability of one's own learning differs on the basis of gender.

The current study's findings demonstrate that knowledge, which involves:

1) Knowledge of the significance of English as a second language;
2) Knowledge of the significance of improvement;
3) Knowledge of the subject matters of the learning content and resources; and
4) Knowledge of the rationales for learning English is one of the factors influencing the progress of autonomy in English acquisition.

These four knowledge components stated above correlate to Littlewood's autonomy elements (1996). All interviewees (n=6, 100%) reported another major factor 'Motivation' which was consisted of

1) Motivation to impersonate a conventional person; - to provide themselves with appropriate knowledge, to keep themselves well knowledgeable;
2) Motivation to be competent language learners;
3) Motivation to be the best among the classmates;
4) Motivation to submit outstanding assignments;
5) Motivation to know the language acquisition result;
6) Motivation to cheer parents;
7) Motivation to succeed against competitors (competition among peers).

66% of the respondents (n=3 boys, n=1 girl) reported another factor that encouraged students for English acquisition autonomously was the technological environment. From the responses, it is clear that as compared to girls, boys are more interested in technology that's why they spend more time on digital devices while playing games and watching movies for learning language autonomously.

E-Learning had been reported by the interviewees, to be successful in academic achievement because of its versatility and engaging character, enhancing the mobility of students. Four (66%) of the interviewees argued that it is more advanced to traditional classroom learning. Students who were interviewed by the researcher reported that E-learning enhanced their critical thinking, and they found more learning content

through digital media than printed publications which assisted them to achieve good in their academic session.

Through the responses of the interviewees (n=5, 83%) researcher found out that in this digital age, every person has their own portable devices, which reports that all students get an equal opportunity to be a competent language learner. Students stated that in a traditional class, all students get to learn in the same way, which could not be beneficial for some of the students who tend to learn in different style, so digital literacy provides an equal opportunity to all students to personalize their learning to achieve good in their academic session.

All the participants (n=6, 100%) of the interview answered the question optimistically, all the participants reported that "yes, COVID-19 has done them a favor to make them effective autonomous learner in this digital world". As all of a sudden traditional learning shifted to "online learning" due to COVID-19, students experienced the integration of technology in to learning practices, which made the individuals more keen to dig in the technology world and their this interest assisted them to become effective autonomous learner of English. Interviewees also reported that before corona they were dependent on their teachers for learning but the integration of technology in learning practices made them independent of their teachers which was the need of the time.

Discussions

The objective of this research was to investigate the insights and understanding to the following research questions, how does digital literacy help to create an equal opportunity for all students to be successful in autonomous language learning? What are the factors that affect students to regulate their autonomous learning of language through digital literacy? How far does digital literacy help students to improve their academic achievement? This research revealed that students have to be digitally literate in sequence for independent learning to be successful. Individuals with good digital literacy, as per Mohammadyari and Singh (2015), might settle in effectively to E-learning on their own since they consider it easier to comprehend and master the technologies, unique to educational goals and are more productive and convenient in data management.

As per the facts, most of the learners are short on constructivism seeing as they are dependent on their educators to learn English. The results demonstrate that while participants valued self directed learning, they also desired instructors to still be available throughout their formal learning of the English language to oversee the learning practices of students.

The findings declare that the majority of the respondents appreciated the practice of autonomous learning of the English language through digital literacy. Both genders (i.e. girls and boys) and age groups (i.e. 19-22 and 23-26) exhibited a favorable perception towards self-regulated learning using modern technology. But a minor dissimilarity has been found among both gender and age in the results of the analysis in the preceding chapter for the autonomous learning activities through digital literacy, which was not found in Daflizar's (2020) study. Researchers found out that boys and girls and age groups (A and B) differ in perception of their technological competencies but both genders and age groups do not differ in their goal achievement of autonomous learning of the English language.

Findings reveal that boys are more digitally literate than girls and are capable to surf the internet for successful autonomous learning of the English language. Same is the case with both age groups i.e. A (19-22), B (23-26) among which age group B (23-26) is more efficient than age group A. Although autonomous learning was preferred by both

groups i.e. gender and age but girls and age group A (19-22) employ conventional learning style due to their lack of digital literacy and boys employ modern learning style as they are digitally literate. But by proper training in technology-enhanced English language learning can rub out this difference and can provide an equal opportunity to all students to be successful in autonomous language learning. According to Ng (2012), learners can have the mastery to use technology in education that they really are unaccustomed with for learning unless they are exposed to and offered the opportunity to make use of them.

The willingness of self-directed learning, thus according to Phillips, Turnbull, and He (2015), is equipped with three major factors and they are self-discipline, self-regulation, and an eagerness to learn. Prior et al. (2016) reported that individuals are more competent, autonomous, and activated when they exhibit high self-efficacy. As a result of the analysis, students hold an optimistic outlook toward autonomous English language learning through digital literacy. Consequently, by providing assistance to students in developing computer literacy, instruction in technology augmented learning of the English language can indeed help to facilitate self-regulated learning amongst many other students who are not motivated towards autonomous English acquisition.

Multiple factors affecting language learners' intentional usage of technology resources for learning second language have been highlighted in the present study:

1) Internal variables including students' attitudes on language and individuality, linguistic competence levels, as well as the motivation of learning second language have been found out in the context of Pakistan which relate with the previous works. (Hyland, 2004; Chusanachoti, 2009; Lai and Gu, 2011).
2) various external factors, for instance how the language is perceived and respected by the social environment, the language statuses of learners' instantaneous living environments, the specifications of the language class (e.g. evaluation regime), social networking and social standards have also been discovered by the researcher in the context of Pakistan.

The respondents, according to the researcher, are competent practitioners of technological resources with a significant level of interest as well as awareness about digital devices and associated resources. It was found by the researcher that the respondents are more in charge of their own learning; they can comprehend the importance of socialization and regular interaction with the English language, and are competent at blending both informal and formal learning.

The findings of the study highlight that digital literacy helps language learners to a great extent to improve their academic achievement. The researcher came to the conclusion that a pleasant learner outlook as well as comprehensive literacy of modern technologies can strengthen levels of self-confidence, which then in sequence enhances online behaviors including learning management, peer engagement, system collaboration, and facilitator intervention. Digital literacy has affected the confidence, critical thinking, communication skills and research skills of the students in a positive direction.

A researcher has also concluded that it is not only the context or state of affairs that encourages mobile language learners for using their devices for language learning, but also their recognized needs or shortfalls in their learning competency, some of which could be listening, that can be easily fixed while using mobile devices.

Hannafin & Hannafin (2010) suggested that technology-mediated learning environments seem to be well utilized by students with

autonomous learning competencies, and self-regulated learning optimizes academic achievements, as a justification for attempting to examine EFL learners' use of information communication technologies for self-initiated language acquisition. The findings of this study reveal that the technical characteristics of the respondents in this investigation are broadly comparable to those described in earlier studies (Winke & Goertler, 2008; Zhang, 2010).

The COVID-19 outbreak however has affected how many students acquire and practice learning. Instructors and learners had grown familiar to conventional teaching and learning processes like face-to-face sessions and were unwilling to support any shift. Although, interviewees indicated that it was helpful to the field of education and culminated in several of amazing developments. Through modern technology, this COVID-19 epidemic has definitely enhanced their autonomous teaching strategies. COVID-19 had also aided learners in escaping from their typical reliance on their educators.

Conclusion

Developing the habit of autonomous learning is plainly one of the chief goals of pedagogy, especially at the university level in the context of Pakistan. The current research is beneficial for learners, as it defines the effects of autonomous learning on language learners through digital literacy. The E-learning tools used for autonomous learning also improves the learning skills of language learners. Adopting such strategies for language learning enhances learner's motivation plus leads to more productive learning and it has a long-lasting influence. Although, learner autonomy is also greatly influenced by the learning habitat in which the learning procedure takes place. Consequently, in distance learning domain, where student autonomy is a notable demand, novel learner-centered practices should be prevalent.

Recommendations for Future Research

In the context of the findings, this investigation has established two beneficial recommendations for promoting autonomous English learning among students: learner training plus curriculum development. The former encourages teacher and student coaching to raise awareness of autonomous learning while slowly turning over these responsibilities to learners. The latter advocates establishing a curriculum that fosters as well as enable teachers but also students' autonomy inside the classroom.

References

Chusanachoti, R. (2009). *EFL learning through language activities outside the classroom: A case study of English education students in Thailand*. Michigan State University.

Daflizar, D. (2020). Autonomous English Language Learning Beyond the Classroom: Indonesian Tertiary Students' Practices and Constraints. *International Journal of Learning, Teaching and Educational Research*, *19*(10), 194–213. https://doi.org/10.26803/ijlter.19.10.11

Dudeney, G., Hockly, N., & Pegrum, M. (2013). *Digital literacies: Research and resources in language teaching*. Pearson Education Limited.

Gilster, P., & Glister, P. (1997). *Digital literacy* (p. 1). New York: Wiley Computer Pub.

Godwin-Jones, R. (2016). Looking back and ahead: 20 years of technologies for language learning. *Language Learning & Technology*, *20*(2), 5-12. http://hdl.handle.net/10125/44457

Hannafin, M. J., & Hannafin, K. M. (2010). Cognition and student-centered, web-based learning: Issues and implications for research and theory. In *Learning and instruction in the digital age* (pp. 11-23). Springer, Boston, MA.

Holec, H. (1979). *Autonomy and foreign language learning*.

Hubbard, P. (2013). Making a case for learner training in technology-enhanced language learning environments. *Calico Journal*, *30*(2), 163-178. https://www.jstor.org/stable/calicojournal.30.2.163

Hyland, F. (2004). Learning Autonomously: Contextualising Out-of-class English Language Learning. *Language Awareness*, *13*(3), 180–202. https://doi.org/10.1080/09658410408667094

Lai, C., & Gu, M. (2011). Self-regulated out-of-class language learning with technology. *Computer Assisted Language Learning*, *24*(4), 317–335. https://doi.org/10.1080/09588221.2011.568417

Li, J., Snow, C., & White, C. (2015). Urban adolescent students and technology: access, use, and interest in learning language and literacy. *Innovation in Language learning and teaching*, *9*(2), 143-162.

Little, D. (1994). Learner autonomy: A theoretical construct and its practical application. *Die Neueren Sprachen*, *93*(5), 430-442.

Littlewood, W. (1996). "Autonomy": An anatomy and a framework. *System*, *24*(4), 427-435.

Mohammadyari, S., & Singh, H. (2015). Understanding the effect of e-learning on individual performance: The role of digital literacy. *Computers &Amp; Education*, *82*, 11–25. https://doi.org/10.1016/j.compedu.2014.10.025

Ng, W. (2012). Can we teach digital natives digital literacy? *Computers &Amp; Education*, *59*(3), 1065–1078. https://doi.org/10.1016/j.compedu.2012.04.016

Phillips, B. N., Turnbull, B. J., & He, F. X. (2015). Assessing readiness for self-directed learning within a non-traditional nursing cohort. *Nurse Education Today*, *35*(3), e1–e7. https://doi.org/10.1016/j.nedt.2014.12.003

Prior, D. D., Mazanov, J., Meacheam, D., Heaslip, G., & Hanson, J. (2016). Attitude, digital literacy and self efficacy: Flow-on effects for online learning behavior. *The Internet and Higher Education*, *29*, 91–97. https://doi.org/10.1016/j.iheduc.2016.01.001

Riddle, S. (2015). The robots are coming for your job! Why digital literacy is so important for the jobs of the future. *The Conversation*, *27*, 1-4.

Saadatmand, M., & Kumpulainen, K. (2012). Emerging technologies and new learning ecologies: Learners' perceptions of learning in open and networked environments. In *Proceedings of the 8th international conference on networked learning*. 266-275.

Toffoli, D., & Perrot, L. (2017). *Autonomy, the online informal learning of english (OILE) and learning resource centers (LRCs): The relationships between learner autonomy, L2 proficiency, L2 autonomy and digital literacy.*

Trinder, R. (2015). Blending technology and face-to-face: Advanced students' choices. *ReCALL*, *28*(1), 83–102. https://doi.org/10.1017/s0958344015000166

Winke, P., & Goertler, S. (2008). Did we forget someone? Students' computer access and literacy for CALL. *Calico Journal*, *25*(3), 482-509. https://www.jstor.org/stable/calicojournal.25.3.482

Zhang, G. (2010). *Technology uses in creating second language learning environments: When learners are creators*. 1-95. Michigan State University.

Zhao, X., & Chen, W. (2014). Correlation between learning motivation and learner autonomy for non-English majors. *World Transactions on Engineering and Technology Education*, *12*(3), 374-379.

Zhong, D. (2018). *The evolution of learner autonomy in online environments: A case study in a New Zealand context.*