ELT and Digital Gamification: Perceptions of Pakistani English Language Teachers

Abdul Farooq Khan
Corresponding Author
farooqsawansi@gmail.com
https://orcid.org/0009-0004-4424-1794
Punjab School Education Department
Hafsa Hamid Butt
hafsabutt047@gmail.com
Independent Researcher

Abstract

It is the century of technology. Technological advancements have transformed the ways of working in every field of life including language teaching. This quantitative survey research aimed to investigate Pakistani English language teachers' perceptions of using digital gamification in language teaching. A total of 56 teachers comprising 34 males and 22 females participated in the survey. 31 out of these were from public and 25 were from private schools. An online questionnaire, using Google Forms, was used to collect data. SPSS 26 was used to analyze the data based on frequency analysis, descriptive analysis, and T-test. Teachers agreed that digital gamification can improve language skills and build confidence in students so it should be embedded in language classrooms and teachers should be trained for its utilization. No difference of opinion in male versus female and private versus public school teachers for using digital gamification was observed. Using digital gamification in language teaching is recommended while designing a curriculum, making policy, or planning a lesson.

Keywords: *ELT, gamification, ELT teachers, perceptions*

Introduction

Digital Technologies have advanced and improved business models and process and proved to be essential for businesses to survive and compete in this modern era. Like all other fields of life, education has also adopted and benefited from digitalization. Developed countries equipped their education system with tech-based tools. Digital gamification is one of these effective tools that has revolutionized education in general and language teaching in specific. Gamification has been adopted by the teachers to make their teaching more appealing and student centered. It is an active rather than passive method of teaching that is the product of scientific research/s in order to meet the contemporary needs of the students and it has been widely adopted and approved by educationists and researchers (Kapp, 2012). Nahmod (2017) referred gamification as an appealing and efficient tool for learning new language since use of game elements makes it interesting and motivates learners. Limited time is given to learners for target language practice in schools. Students can practice as much as they want with games as they have time of their choice at home. Digital gamification, since its appearance in 1970s, has been reckoned as fructuous tool for language learning. Researches have proved that students' intrinsic motivation and academic achievements increased with gamification (Hanus & Faux, 2015) and engagement and learning outcome of the students increased (Clark et al. 2011). Lee and Hammer (2011) stated that gamification also help the students to play freely without fear of failing in learning.

In this tech-driven world, there are countries that do not have technological resources at all or have it partially and stand far behind from developed countries. There are other countries in which, despite the proven fact that internet and technology has opened new pathways of learning, students are not given access of it based on the stereotype that it can mislead them. Even the top management of education, teachers and educated class of the society are stereotyped. This research was conducted to unfold the views of the Pakistani English language teachers in using digital games in language learning (Valarmathi & Shermila, 2023).

Objectives

1. To explore the attitude of Pakistani English language teachers towards use of digital gamification in English language teaching.
2. To investigate the concerns of Pakistani English language teachers regarding integration of digital gamification in English language teaching.
3. To analyze the differences in Pakistani English language teachers' attitude and concerns towards digital gamification based on gender and type of institution.

Research Questions

1. What do Pakistani English language teachers think of using digital gamification in English language teaching?
2. What are the concerns of Pakistani English language teachers regarding integration of digital gamification into their language teaching skills.
3. How do Pakistani English language teachers' attitude and concerns differ towards use of digital gamification based on gender and type of institution they are employed in?

Significance of Study

The research investigating the perceptions of Pakistani English language teachers regarding use of digital gamification in language teaching can lay the groundwork for language teachers, curriculum designers and policymakers. It can guide institutions to allocate their resources effectively for adopting digital tools to meet the demands of modern tech-driven world. In addition to its practical implications, it will provide basis for future research on digital gamification in language teaching.

Literature Review

Learning and teaching a new language is not an easy task in view of the fact that languages are complicated. It is extremely laborious and challenging to learn the language as Akbari (2015) stated it one of the hardest tasks. There are many factors that make this process exhausting i.e. anxiety, adopted methods, socio-cultural practices, attitude of learner and disengagement with target language (Rafek et al, 2014; Liu, 2017; Schlueter, 2019). It is nerve-racking to speak in target language in many countries (Iaremenko, 2017). There must be solution for making students able to participate confidently in language learning (Garcia, 2017). Active methods for language learning are found more efficacious and coherent than passive methods in this regard (Dehghanzadeh et al, 2019).

Gamification is one of the active methods that uses computer applications to teach fundamental and complex concepts. Kapp (2012) defined gamification as "using game-based mechanics, aesthetics, and game thinking to engage people, motivate action, promote learning, and solve problems". Rahat Paharia coined the term gamification in 2008 but its use can be traced to early sixties as Piaget (1962) raised the importance of games that it does not only help children in mastering their environments but also in creating their imaginative world. It is the process of applying positive game elements on non-game environments to provoke immersive learning opportunities and provide more appealing learning strategy. It sways participants' behavior, motivating and involving them to attain diverse targets. There are some elements of gamification that are observed while designing games that motivate and engage the students. These are: Badges, Points and Levels, Leaderboards, and Progress Tracking. In different educational environments, according to Grant (2013), importance and elements of interests are presented with badges that motivate learners. Badges indicate success and achievements of learners. Leaderboards are important component of digital games as Reeve and Read (2009) described that it shows learners' grades and scores along with steps of games and identification of game elements. Points and Levels element traces the learners' progress. Earning points and completing different levels motivate the students. Overall Progress tracking of games helps the learners know their weak and strong areas by providing them with feedback.

English is the only non-native language that is taught as compulsory subject in Pakistani schools and universities. This insistence makes it important to study the factors effecting

English language teaching. Disuse of technology is one of the key factors in this regard. Traditionally the learning process had been limited to the class only but the intervene of technology has expanded it. Students can manage their learning on their own with technological resources. It is mandatory for the teachers to educate the learners for using these resources.

In Pakistan, there were 191.8 million cellular mobile connections and 87.35 million internet users in the early 2023. These figures show that 80.5% and 36.7% of the total population, respectively, is benefiting from the technology. The number of users is increasing day by day but still no technological resources, including digital games, are utilized in teaching languages despite empirical proven positive impacts of its application.

Limited research has been conducted in Pakistani setting to investigate the impact of Digital Gamification on English language teaching and perceptions of teachers and students toward it. Abbasi et al. (2023) recorded the experiences of those English language learners who used the Quizizz, a digital game for language learning, in ESP classes. 5 focus group interviews of Cyber Security undergraduate students were conducted for data collection. Thematic analysis of the recorded data revealed that digital gamification proved to be motivating and engaging learning environment. Qasim (2021) investigated the impact of digital games on incidental vocabulary acquisition of Pakistani students. The researcher collected the data via questionnaire and semi-structured interviews. 88 high school students voluntarily attempted questionnaire and 23 volunteered for the interview but only 5 were interviewed. Quantitative analysis supported by thematic interview analysis reported the positive role of digital gamification in vocabulary acquisition. Learners felt pressure-free and more engaged playing digital games. They reported that their vocabulary increased and they were able to perform well in real life interactions after involvement in language centered digital games. Self-dependency and confidence of the learners also increased.

Research Methodology

Type of Research

This study used quantitative approach that helps the researchers, as Hamari et al. (2016) stated, to collect numerical data that helps them to quantify the attitudes, preferences, and beliefs of the participants related to digital games. It further facilitates to unfold the participants' perception patterns and trends to know the themes, concerns and preferences (Chik et al. 2019).

Participants

Nonprobability convenient sampling was used to obtain the data based on the willingness of the participants and of access. 56 Pakistani English language teachers, 34 male and 22 female, participated in the research. 31 out of total were from public and 25 were from private institutes. 1 respondent had 20 years, 26 had 18 years, 28 had 16 years professional qualification and 1 responded with 'other' qualification. 17 participants had specialization in literature, 12 in linguistics, 20 in both and 7 in other fields i.e. History, Biology etc. In professional qualification, 16 participants responded with M.Ed., 33 with B.Ed., 06 with ELT certification and 1 with 'other'. 29 participants of the total had 1-5 years teaching experience, 15 had 6-10 years, 11 had 11-15 years and 1 had 16-20 years.

Table 1. Demographic details of the participants (N=56)

Variable	Category	Frequency	Percentage
Gender	Male	34	60.7
	Female	22	39.3
	Prefer not to say	00	00
Institution	Public	31	55.4
	Private	25	44.6

Academic Qualification	16 Years	28	50.00
	18 Years	26	46.4
	20 Years	01	1.8
	Other	01	1.8
Specialization	Literature	17	30.4
	Linguistics	12	21.4
	Both Literature & Linguistics	20	35.7
	ELT	02	3.6
	Other	05	8.9
Professional Qualification	PTC	01	1.8
	B.Ed.	33	58.9
	M.Ed.	16	28.6
	ELT Certification	06	10.7
Teaching Experience	1-5 Years	29	51.8
	6-10 Years	15	26.8
	11-15 Years	11	19.6
	16-20 Years	01	1.8

Data Collection and Analysis Tool

Data was collected using google-forms based questionnaire. It was divided into two sections: Personal Information and Body. In personal information section, names, academics and experiences of the participants were recorded. 2 dichotomous and 7 Likert-scale questions with five responses, from strongly disagree to strongly agree, were placed in the body section to meet the objectives of the research.

Data was analyzed on the basis of the frequency analysis, descriptive analysis and the t-test using SPSS 26. Frequency analysis was carried out to know the percentage of the different responses while descriptive analysis was performed to calculate the mean score and standard deviation for Likert scale items. T-test was used to compare the differences in the responses of English language teachers on male-female and public-private distinction. Reliability and the internal consistency of the questionnaire items was evaluated using Cronbach's Alpha.

Results and Discussions

Reliability

Cronbach's Alpha value, in our sample, for the variable of teachers' attitude scale was .842 and for teachers' concern scale was .651 (Table 2). In the case of the teachers' attitude scale, reliability is good and it is acceptable in the case of teachers' concern scale (Konting et al, 2009).

Table 2. Reliability Statistics

Variable	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Teachers' Attitude	.842	.838	5
Teachers' Concern	.651	.652	2

Item-Total statistics for the teachers' attitude show that the Cronbach's Alpha value can improve if items 1 and 3 (Table 3) are removed. These items were still accepted and were not removed because the number of items in questionnaire are already low and removing these items could affect the results of the research.

Table 3. Item-Total Statistics for Teachers Attitude

Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Digital Gamification can improve students' language skills.	15.89	8.934	.475	.293	.854
Digital Gamification can build confidence in students without fear of failure.	16.04	7.744	.753	.613	.780
Digital Gamification should be embedded in ELT classroom.	15.87	9.311	.498	.277	.845
Teachers should be trained to utilize Digital Gamification.	15.73	7.363	.764	.671	.775
Digital Gamification should be used to meet the demand of modern tech-driven world.	15.75	7.427	.758	.644	.777

No items were suggested to be removed for the variable teachers' concerns (Table 4).

Table 4. Item-Total Statistics for Teachers' Concerns

Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Digital Gamification causes indecency in students.	2.34	.883	.484	.234	.
Digital Gamification wastes students time.	2.96	1.053	.484	.234	.

Teachers' Attitude

78.6% of the respondents agreed or strongly agreed, 5.4% disagreed or strongly disagreed that digital gamification can improve students' language skills. 16.1% of the participants neither agreed nor disagreed but remained neutral (Table 5).

73.2% of the participants agreed or strongly agreed that digital gamification can build confidence in student. 7.2% disagreed or strongly disagreed and 19.6% responded neutral.

80.3% of the teachers believed and 3.6% did not believed that digital gamification should be embedded in ELT classroom while 16.1% were neutral.

Trainings on utilization of digital gamification were supported by 87.5% of the respondents. 9% did not support and the view 3.6% was neutral.

85.7% of the teachers showed positive attituded towards the use digital gamification to meet the demand of the tech driven world. No participant strongly disagreed. 5.5% disagreed and 8.9% remained neutral.

Table 5. Frequency Analysis (in percentage)

Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Digital Gamification can improve students' language skills.	3.6	1.8	16.1	55.4	23.2
Digital Gamification can build confidence in students without fear of failure.	3.6	3.6	19.6	57.1	16.1
Digital Gamification should be embedded in ELT classroom.	1.8	1.8	16.1	60.7	19.6
Teachers should be trained to utilize Digital Gamification.	3.6	5.4	3.6	53.6	33.9
Digital Gamification should be used to meet the demand of modern tech-driven world.	0	5.4	8.9	53.6	32.1

Participants agreed on average that digital gamification can improve students' skills (MS=3.93), build confidence (MS=3.79) and it should be embedded in ELT classroom (MS=3.95). Mean score for trainings on the use of digital gamification (MS=4.09) and its use to meet the demands of the modern tech-driven world (MS=4.07) showed the strong agreement (Table 6).

Standard deviations for the items (Table 6) show that responses had moderate to low variability indicating the agreement between the participants.

Table 6. Descriptive Analysis (n=56)

Items	Mean Score	Standard Deviation
Digital Gamification can improve students' language skills.	3.93	.892
Digital Gamification can build confidence in students without fear of failure.	3.79	.889
Digital Gamification should be embedded in ELT classroom.	3.95	.773
Teachers should be trained to utilize Digital Gamification.	4.09	.959
Digital Gamification should be used to meet the demand of modern tech-driven world.	4.07	.951

Results show that the majority of the participants supported the use of the digital gamification in educational setting believing that it can help improving students' language skills and building confidence. In addition, participants agreed that there should be trainings on the use of digital gamification in language classroom and use digital gamification is pivotal for meeting the modern technological demands.

Teachers' Concerns

Concerns on whether digital gamification causes indecency in students varied. 35.8% of the participants disagreed and strongly disagreed, 30.3% agreed and strongly agreed, and 33.9% remained neutral. Opinions of 69.6% of the participants on whether digital gamification wastes time was disagreed and strongly disagreed. 12.5% of the participants agreed and strongly agreed and 17.9% were neutral (Table 7).

Table 7. Frequency Analysis

Items			Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Digital Gamification indecency in students.	causes		5.4	30.4	33.9	23.2	7.1
Digital Gamification students time.	wastes	12.5		57.1	17.9	8.9	3.6

Mean scores for the item 1 and 2 on teachers' concern is 2.96 and 2.34 respectively (Table 8). 2.96 is close to 3 that indicates the neutral response of the participants while 2.34 is close to 2 indicting the disagreement of the participants. It shows participants neither agreed nor disagreed whether digital gamification causes indecency in students and disagreed that it wastes students' time.

Standard deviation for item 1 is 1.026 and for item 2 it is .940 (Table 6). Standard deviation of item 1 indicates that there is moderate spread in participants' responses while slightly lower standard deviation for item 2 shows consistent responses for its statement.

Table 8. Descriptive Analysis (n=56)

Items	Mean Score	Standard Deviation
Digital Gamification causes indecency in students.	2.96	1.026
Digital Gamification wastes students time.	2.34	.940

Frequency and Descriptive analysis for teachers' concern shows that teachers views are neutral when asked whether it causes indecency in students but they disagreed that it wastes students' time.

Differences in Teachers' attitude and concerns based on gender

Independent samples test was performed to know the differences in attitudes and concerns of male and female teachers. Table 9 shows that mean score of both male and female teachers for teachers' attitude is close to 4 which means there is no notable difference between the attitudes of male and female teachers towards use of digital gamification in English language teaching. Further, it is noted that mean score of both male and female participants for teachers' concern is close to 3 which indicates that both genders concern for use of digital gamification in English language teaching are same with minor differences.

Table 9 T-test Group Statistics for Teachers' attitudes and concerns based on gender

Variables	Gender	N	Mean	Std. Deviation	Std. Error Mean
Teachers' Attitude	Male	34	3.8647	.66373	.11383
	Female	22	4.1182	.74235	.15827
Teachers' Concern	Male	34	2.7647	.80937	.13881
	Female	22	2.4773	.89279	.19034

Table 10 shows that F values in the Levene's test for equality of variances, for both variables, are greater than 0.05 for "Equal variances assumed", so researcher considered its values for analysis. Sig. values are .394 and .518 for teachers' attitudes and concerns respectively. Both values are higher than 0.05 so there is insignificant difference in male and female teachers' attitudes and concerns for use of digital gamification in English language teaching.

Table 10 Independent Samples Test for Teachers' attitudes and concerns based on gender

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Teachers' Attitude	Equal variances assumed	.739	.394	-1.33254		.188	-.25348	.19026	-.63493	.12798
	Equal variances not assumed			-1.30041	.310	.201	-.25348	.19495	-.64710	.14015
Teachers' Concern	Equal variances assumed	.424	.518	1.246	54	.218	.28743	.23060	-.17490	.74976
	Equal variances not assumed			1.220	41.759	.229	.28743	.23558	-.18807	.76293

Differences in teachers' attitude and concerns based on institution

Mean score for teachers from public and private schools for variables teachers' attitudes and teachers' concern was close to 4 and 3 respectively (Table 11). It demonstrates that there is no significance difference in their perception of use of digital gamification in English language teaching.

Table 11 T-test Group Statistics for Teachers' attitudes and concerns based on institution

Variables	Type of Institute	N	Mean	Std. Deviation	Std. Error Mean
Teachers' Attitude	Public	31	3.8903	.75514	.13563
	Private	25	4.0560	.62854	.12571
Teachers' Concern	Public	31	2.6290	.87529	.15721
	Private	25	2.6800	.82765	.16553

Statistics of independent samples test (Table 12) enlisted the values of F as .099 and .373 for "Equal variances assumed" in Levene's test for equality of variances so equal variances were assumed. Sig. value for teachers' attitude is .755 and for teachers' concern it is .544. Values for both variables are higher than 0.05 which means there was insignificant difference in the perceptions of the use of digital gamification in public and private school teachers.

Table 12 Independent Samples Test for Teachers' attitudes and concerns based on Institution

		Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Teachers' Attitude	Equal variances assumed	.099	.755	-.878	54	.384	-.16568	.18862	-.54384	.21249

	Equal variances not assumed			-.896	53.932	.374	-.16568	.18493	-.53644 .20509
Teachers' Concern	**Equal variances assumed**	.373	.544	-.222	54	.825	-.05097	.22968	-.51145 .40952
	Equal variances not assumed			-.223	52.591	.824	-.05097	.22828	-.50893 .40700

Conclusion and Recommendation

Thes study indicates that English language teachers strongly believe that digital gamification can improve students' language skills and can build confidence in them without fear of failure. Therefore, they agree that digital gamification should be embedded in language classroom and there should be trainings for teachers to help them utilize digital games in accordance with the demands of modern tech-driven world. There was no significant difference recorded in the perceptions of male versus female and pubic versus private school teachers for the use of digital games in language teaching.

The research recommends that curriculum designers, policy makers and teachers should consider the use of digital gamification in language teaching. Use of digital gamification not only can improve the leaning skills of the learners but can build confidence in them. Trainings should be offered by the concerned authorities to equip language teachers with tool of digital gamification in order to make language learning easy and interesting for learners. This research should be furthered with large sample size and in accordance with other languages teachers.

References

Akbari, Z. (2015). Current challenges in teaching/learning English for EFL learners: The case of junior high school and high school. *Procedia - Social and Behavioral Sciences*, 199, 394 – 401. https://doi.org/10.1016/j.sbspro.2015.07.524

Chik, A., Aoki, N., & Smith, R. (Eds.) (2018). *Autonomy in Language Learning and Teaching: New Research Agendas*. Palgrave Macmillan. https://doi.org/10.1057/978-1-137-52998-5

Ardoiz, G. L. (2017). *Gamification in English teaching in primary education* (Doctoral Dissertation, University of Valladolid). University of Valladolid Documentary Repository. http://uvadoc.uva.es/handle/10324/29552

Clark, D. B., Nelson, B. C., Chang, H.-Y., Martinez-Garza, M., Slack, K., & D'Angelo, C. M. (2011). Exploring Newtonian mechanics in a conceptually-integrated digital game: Comparison of learning and affective outcomes for students in Taiwan and the United States. *Computers & Education*, *57(3)*, 2178-2195. https://doi.org/10.1016/j.compedu.2011.05.007

Dehghanzadeh, H., Fardanesh, H., Hatami, J., Talaee, E., & Noroozi, O. (2019). Using gamification to support learning English as a second language: a systematic review. *Computer Assisted Language Learning, 34(7)*, 934–957. https://doi.org/10.1080/09588221.2019.1648298

Grant, S. L. (2014). *What counts as learning: Open digital badges for new opportunities*. Irvine, CA: Digital Media and Learning Research Hub.

Hamari, J., Shernoff, D., Rowe, E., Coller, B., Asbell-Clarke, J., & Edwards, T. (2016). Challenging games help students learn: An empirical study on engagement, flow and immersion in game-based learning. *Computers in Human Behavior, 54*, 170–179. https://doi.org/10.1016/j.chb.2015.07.045

Hanus, M. D., & Fox, J. (2015). Assessing the effects of gamification in the classroom: A longitudinal study on intrinsic motivation, social comparison, satisfaction, effort, and academic performance. *Computers & Education, 80*, 152–161

Iaremenko, N. V. (2017). Enhancing English language learners' motivation through online games. *Information Technologies and Learning Tools, 59(3)*, 126-133. K. E.Valarmathi, & A. Joycilin, S. (2023). Perception of English Teachers in Using Language Games. *Journal of English Language Teaching, 65(3)*, 22–30.

Kapp, K. (2012). *The Gamification of Learning and Instruction. Game-Based Methods and Strategies for Training and Education.* Pfeiffer, San Francisco, CA.

Konting, M. M., Kamaruddin, N., & Man, N. A. (2009). Quality assurance in higher education institutions: Exit survey among Universiti Putra Malaysia graduating students. *International Education Studies, 2*, 25-31.

Lee, J. J., & Hammer, J. (2011). Gamification in education: What, how, why bother? *Academic Exchange Quarterly, 15(2)*, 146.

Liu, T.-Y. (2017). Developing an English mobile learning attitude scale for adult learners. *Journal of Educational Technology Systems, 45(3)*, 424-435.

Abbasi, M.H., Aftab, M. & Farshad, M. (2023). Experiences of English language learners about using Quizizz tool for learning and language achievement in ESP classes. *Bahria University Journal of Humanities & Social Sciences, 6(1)*. https://doi.org/10.58800/bujhss.v6i1.166

Nahmod, D. (2017). Vocabulary gamification vs traditional learning instruction in an inclusive high school classroom (Master's Thesis, Rowan University). Rowan University Repository. https://rdw.rowan.edu/etd/2467

Piaget, J. (1962). *Play, dreams, and Imitation in Childhood*. Norton & Co.

Qasim, A. (2021). Impact of Digital Games on Incidental Vocabulary Acquisition of Pakistani High School Students. *Asian EFL Journal, 28,* 206-224.

Rafek, M. B., Ramli, N. H. L. B., Iksan, H. B., Harith, N. M., & Abas, A. I. B. C. (2014). Gender and language: Communication apprehension in second language learning. *Procedia, Social and Behavioral Sciences*, *123*, 90–96. https://doi.org/10.1016/j.sbspro.2014.01.1401

Reeves, B., & Read, J. L. (2009). *Total engagement: Using games and virtual worlds to change the way people work and businesses compete.* Harvard Business School Press.

Schlueter, A. L. (2019). Learning English for young learners "the aspect of intercultural dimension, diversity arts and media in the early foreign language education". *Proceedings of the Sixth of International Conference on English Language and Teaching (ICOELT 2018)*. Presented at the Proceedings of the Sixth of International Conference on English Language and Teaching (ICOELT 2018), Padang, Indonesia. https://doi.org/10.2991/icoelt-18.2019.33