

# Applying The New Paradigm Of Anywhere Any Time In ESL Teaching Experience In The KRG Province Iraq

Mazen Ismaeel Ghareb, Sam Sate-Askew, Saman Ali Mohammed

**Abstract:** Traditional Teacher Centered Learning (TCL) and Classroom-Oriented Learning (COL) methods and approaches are fast giving ways to alternative, rapidly evolving, styles in our modern Information Age [24]. English Language Teachings (ESL/TEFL), previously a tutor-centered and classroom-based activity, are similarly following suit as evidenced by the availability of CALL methods and technologies [1] [2] [10], and also by the widespread use of Applications (Apps) implemented in smartphones, tablets and pads as well as laptops. Before appropriately implementing any strategy in our case study, a literature review is done to reach an adequate understanding of the state-of-the-art in terms of technology-assisted ESL / TEFL. Next, an appropriately designed questionnaire was used to ascertain the various technological as well as user-centred factors which may impact upon the efficacy and usefulness of such a plan and strategy. Increasingly, students are dependent upon mobile technology for information gathering and communication . How successful can this be in the context of ESL/TEFL? What can we learn from these factors, and how can we best adapt this technology and resource in the context of the English Language learning experience in Kurdistan Iraq?

**Index Terms:** English Language Teaching, computer assisted language learning CALL, English Language Teaching, mobile learning and technological language learning development.

## 1 INTRODUCTION

### 1.1 Problem statement:

Computer-mediated Learning in the Kurdistan Region of Iraq is a not a new methodology, although ICT has been implemented at varying levels and extents, in the mainstream education system [(cite references)]. CALL on the other hand, would seem to be a relatively new adventure and as a strategy has the potential of addressing known limitations and issues in more traditional ESL/TEFL settings. Our approach stems from the idea that both instructors and learners of English Language while necessarily are inseparable, this new paradigm of anywhere, anytime Language Learning is bound to change the education landscape and hence the learning experience. Both parties (learners and instructors) may no longer be bound by spatial and /or temporal confinements: distance learning and e-learning and virtual classroom-oriented delivery open up new horizons. However, social and other experiential (based upon traditions for example) factors may play a vital role in the outcome of such strategies and we need to identify these and incorporate them into strategy development, policy making, and learning outcome assessments.

We feel that given the rapid development in ICT on the one hand, and the relative wide spread use of mobile technology (including smartphones and tablets /pads) awareness on the other, leaves an ever-widening gap in learning strategy generally, but in Language Learning specifically in this region [(cite and references here)]. This continues to be a problem looking for suitable solutions. Our paper, therefore, attempts to ask these madoesin questions, and find relevant information whereby adequate solutions and strategies can be followed up:

1. How accessible /feasible is this technology as a strategy and as a resource in an otherwise traditionally based ESL/TEFL learning environment?
2. What may be the factors that influence learners' ability to engage and adopt this methodology and to what extent?
3. To what extent does CALL facilitate or promote student-centred (learner-centered) behaviour and responsibility / motivation?
4. What other challenges and issues do we need to take into account when adopting CALL strategies in relation to aims and learning outcomes?

Our paper investigates the opportunities of implementing modern ESL/TEFL teaching methods,taking into account the advent of Computer-Assisted Language Learning (CALL) and the advent of mobile learning-teaching technologies as increasingly being made available on various platforms and devices. Today smartphones, tablets and pads complement other traditional PC & laptop devices as tools for learning. Keeping within the Student-centred learning-teaching, and self-directed study philosophies, this paper attempts to identify the various technical as well as any user-centred issues and factors which impact upon the students' learning experience. A survey was designed to help generate the data for this paper, simulating an actual assignment and providing a wide range of question styles testing the basic comprehension elements such as listening, reading and writing and including an element which uses a serious game to facilitate learning and identify factors affecting users' interest and attraction [1][2] [25] [26] .

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## 1.2 Methods:

1st year undergraduates in the College of Science and Technology (University of Human Development) in Kurdistan Iraq, from both the IT and Computer Science Departments, take English Language Units over 2 semesters (roughly amounting to about 5-6 months teaching period). The current strategy of TEFL in this college is based upon traditional class and tutor lead instructions with basic ICT elements as part of the daily class room instruction and ICT is restricted to activities and practicals for assignments which are again very clearly defined and the students have little or no scope in self-directing or any form of autonomy. The exception being projects and presentations, albeit to a limited extent. It should be noted that as far as CALL applications, the university (of Human Development) has not implemented any CALL package as a formal part of the tuition and practical course work. There are obvious technical, social, and procedural constraints and it is hoped that via this study some questions may be highlighted and answered, where possible, to help facilitate the adoption of CALL. We were very conscious of two major problem domains which we had to consider when designing our research methods and data collection:

- A. The majority of the learner study population will only have had the most basic tuition in regards to ESL in Kurdistan region of Iraq [(need to cite some references here – see list)]. The problem that we must deal with is how ready are they to adapt to a new methodology & technology (CALL) however fully or partially implemented?
- B. These undergraduates will only need to focus upon a specialized field, as far as ESL content and syllabi is concerned, being related to their respective departmental curriculum: Computer Science and Information Technology.

This presents a unique situation academically: imposing limitations on the one hand (such as vocabulary and interactions), and opportunities to explore other subjects stipulated by the learning outcomes on the other. If such be the case, then to what extent do these factors influence: learners' level of interested learners' level of responsiveness (responsibility, autonomy) learners' level of motivation vs perceived progress in competency Data Collection: Our research methods incorporate both qualitative and quantitative elements to gain as rich a picture as possible and thus more compelling information [ previous work (cite references)]. The research questions and area of interest lead us to consider a design for our questionnaire and other methods to investigate these parameters: ability for self-directed learning experiences and exploration motivation initiative and responsibility in planning a learning strategy Physical, technical as well as traditional and social factors :

1. ease of use and accessibility
2. follow up with tutors and peers
3. pre and post questionnaire activities
4. Instructions and Assessments as compared with traditional non-computer mediated Learning in terms of relevance, how likely to be repeated, how likely is to lead to further exploration and following user-centred needs and situation.

## Tools used:

1. Questionnaire
2. Observation Classroom-Oriented
3. Pre Questionnaire - Preparation activity and assessments: online search for ESL Apps followed by a short presentation and report (thus combining comprehension tests for both elements of CALL and non-computer based forms).
4. Post Questionnaire – A tutorial based assignment
  1. Social Media (Facebook) as a blog and a forum to record and track interactions and feedback with the tutor and among the student population of both departments (separately)
  2. Google forms for the questionnaire and Google Class (email) for the written and communication elements.
  3. face-to-face interviews and unstructured interactions for the purpose of making the exercise as natural and as fluid as possible.

## 1.Questionnaire:

The 4 problem questions mentioned above were used in considering the questionnaire design. [Table X shows a copy of this questionnaire]. In order to promote maximum participation and to gather test data the questionnaire was part of an assessments and therefore was marked accordingly. Question 1 and 2 were related to Internet based and CALL use and frequency, user perception and motivation. Questions 3 through 10 introduced elements of reading, writing, listening comprehension vocabulary (general), vocabulary (IT and Computer Science related). One of the questions involved taking part in a serious game exercise which was used to obtain a grade depending upon progress, and completion, and this in turn allowed us to gauge how engaging was this exercise and how effective / useful these aspect of computer – assisted learning were. Statistically students from both departments responded as the following data in the Results section show. To find out some user - specific factors which may affect the effectiveness or otherwise of the e-Learning experience we designed an assignment with a built-in questionnaire- certain questions tackling the core of the paper. The assignment was produced using Google Forms that generated the data sets. Grades were produced from basic comprehension tasks. Qualitative as well as quantitative data were therefore collected from a total student population of almost 200 students. The project was participated by all the 1st year students at both the IT and CS Departments, College of Science and Technology at the University of Human Development, Sulaymanya Iraq Kurdistan. The tests were specific to English Language learning (ESL) only. This project is new proposal of teaching English with CALL tools. This will mark a turning point in the development of the Syllabus of teaching English in computer science department, which had been based on more traditional class and teacher oriented teaching methods. We wanted to discover the various factors which affect the implementation of e-Learning and specifically, anytime anywhere learning experience in the context of ESL, here at UHD in the Kurdistan Region of North Iraq. By encouraging students to use the web and explore other resources in their efforts to complete their assignments, we were hoping to simulate a student-centred approach to learning, and they were given the option to use other social media platforms to maintain contact with the tutors(s) and announce progress. This untraditional method of learning has

never, or seldom been applied in this region, and therefore were very keen at the outset to gauge student, and also teacher, responses and feedback. Apart from technical and linguistic issues, what are the most important factors which impact student learning experience under such a mixed mode of education delivery? We have tried to separate these factors and group them to aid in their classification and understanding, and hence in our attempts at devising new methods and approaches.

## 2 METHODOLOGY

### 2.1 Literature Survey

In our literature survey we found a modest amount of material relating to e-Learning from a wide range of geographical areas but still much less in Kurdistan. There is even a lesser amount dealing specifically or addressing ESL learning. This motivated us to have a modest attempt to find some relevant answers to such questions posed here, and also to encourage further research locally and regionally.

#### • Learning

The view adopted here is that teachers must pay attention to technology not because it is either a boon or a threat, but because technology inevitably affects language learning and use. Technology shapes how people use language in particular instances, not as an autonomous, deterministic force, but in interaction with a range of factors including individual volition, social conventions, situational context, and material constraints [3]. The cultural know-how needed to deal with technologies forms of language—whether as a producer or interpreter of earnings—is literacy, or plural literacy since language technologies vary dramatically and being literate in one mode does not imply being literate in all modes [3]. Rather than attempting to distinguish between ‘new’ and ‘old’ illiteracies corresponding to ‘new’ and ‘old’ technologies, we propose an approach that focuses on how literacy practices always preserve some conventions from earlier technologies (e.g., we ‘scroll’ our electronic texts and often use ‘paper’ page layouts on our computer screens), while also developing novel medium-specific conventions (e.g., emoticons and ASCII art on computer keyboards). When we ‘remediate’ earlier media [4] we influence the design of communication and express particular values and ideas about what communication is [5]. If speech originally required interlocutors to be present in the same place at the same time, the technologies of writing, telegraph, telephone, and radio made long distance communication possible. Today, digital technologies allow people to speak or write either synchronously or asynchronously, with participants either at a distance or in close proximity. These change complexity and the nature of spatial and temporal context in electronically mediated communication [6]. With digital devices, people operate simultaneously in physical and symbolic spaces. multi-user object-oriented domains, Second Life (a user-generated virtual world based on three-dimensional modeling), and massively multi-player games [7][8], people from various parts of the world convene in common virtual spaces. Within those spaces, they use language to re-create themselves in interaction with others (sometimes in ways quite different from their ‘normal’ selves). In addition to these new ways of dealing with traditional texts, digital technologies also make possible new kinds of texts, allowing writing to be combined with voice, images, music,

sound, and video in a single document. Digital storytelling [9][10]. is one example of a multimedia authoring form in which language is but one mode of signification among many others. Studying the respective logics of different modes and how they function synergistically in digital storytelling, Hull and Nelson conclude that “it would seem hugely important to widen our definition of writing to include multimodal composing as a newly available means” [11].

#### • Culture, Values, and Ethics

One question has to do with a certain culture of appropriation on the Internet. Many young people today consider what exists on the Internet as freely available raw material to be used however they see fit. Moreover, tools for copying and modifying this raw material are simple and abundant. What is distinctive about digital environments is not borrowing. as [12] reminds us, our texts are always filled with others’ words—but rather the sense that borrowing does not require any acknowledgement. The world of Internet remixing and repurposing is largely anonymous and seemingly authorless. Another question has to do with personal presentation in technology-mediated environments. Participants in text-only online communication have greater control of their self-image and expression than they do in face-to-face settings, and [13] coined the term hyper personal communication to describe the phenomenon of people expressing themselves more fully or experiencing stronger affect in CMC environments than in face-to-face settings. This duration of the self can lead people to idealize and overestimate others’ qualities. This is not necessarily a bad thing, but it is something language learners should be aware of as they interact with foreign key pals, since these interactions are often an important source of students’ impressions and generalizations about the target culture.

#### • Heuristic Questions

- Q1. What learning goals do I have for my students?
- Q2. What language, culture, and instructional resources do I have available?
- Q3. How can these resources be used and combined most effectively to serve the established learning goals?
- Q4. How will I assess the effective students’ use of these resources in their attainment of the established learning goals?

#### 1. Learning Goals: What Learning Goals Do I Have for My Students?

In terms of the learning goals that we have for our second/foreign language (L2) students, we begin with broad goals of being able to use language (L2) for communication and for meaning making. To varying degrees, these goals are in line with [14] Standards for Foreign Language Learning, ACTFL’s 21st Century Skills Map [15], the [16] promotion of Translingual and Transcultural Competence, the Conseil de l’Europe’s [17] Common European Framework of Reference project and the subsequent focus on Plurilingual and Intercultural Education [18], and calls to move beyond communicative competence, such as [19] notion of Symbolic Competence, the Douglas Fir Group’s proposal (this issue), and [20] notion of Communicative Competence 2.0, which is conceived to match shifting technological and social trends and encompasses multimedia competency, collaborative communication, agentive participation, and multitasking competency (p. 19). Commonly proposed concepts that

encompass these goals are Multi-literacies, New Literacies, and 21st Century Illiteracies. In general, these terms are typically used to suggest, as the National Council of Teachers of English [21] does.

**2. Using technology tools among Learners**

This research was conducted with second year students, college of language, with the help of a special UHD website. We provide them with any information relevant to their studies including daily and weekly homework. The students often times prefer group work to better understand their own analysis of a literary work [22]. Moreover, in their personal space, whatever thoughts, ideas, and new understanding they have, they share it through Viber program on their smart phones. Apart from the web page, Viber has been of a great help sharing their thoughts and practicing their English. Below is a screen shot of a group of the second year students sharing their understanding of a poem Virtue. Figre1 below shows Viber program that students share and analysis their homework. Moreover, figure2 below shows the personal website for each lecturer that can share his lecturer, assignment or comments on it [22].

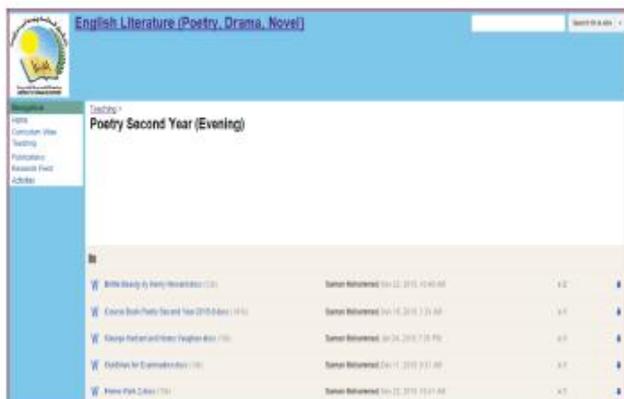
Adding to that there are many student groups on social networks that share and discuss their homework assignment and quizzes. Figure 3 shows these collaborations [22].



**Figure 3** Social Media students, collaborations



**Figure 1** Viber communication of lectures between college of language students



**Figure2** Lecturer, personal website

**1. Language, Culture, and Instructional Resources**

Asking the question “What language, culture, and instructional resources do I have available?” entails considering both the traditional resources that teachers have used for decades as well as familiarizing oneself with what is available through new media and digital resources, and more importantly, being open, flexible, and critical with respect to what will be available in the future that we cannot anticipate or predict. The approach we are proposing focuses on how different mediums and instructional resources influence the way we design communicative tasks for learners. In addition to the traditional linguistic aspects (e.g., grammar and vocabulary) and genre knowledge (which has changed and expanded with the new media available), we must also acknowledge the importance of learners and teachers alike becoming critically aware of the new connections between forms, contexts, meanings, and ideologies in a wide and growing array of media. We as teachers must think about how we might creatively use new technologies for language and culture learning tasks that go beyond the ‘default’ mode and that help students develop the particular types of communicative competence that we desire for them.

**Availability:**

Asking the question “What language, culture, and instructional resources do I have available?” entails considering both the traditional resources that teachers have used for decades as well as familiarizing oneself with what is available through new media and digital resources, and more importantly, being open, flexible, and critical with respect to what will be available in the future that we cannot anticipate or predict. The approach we are proposing focuses on how different mediums and instructional resources influence the way we design communicative tasks for learners. In addition to the traditional linguistic aspects (e.g., grammar and vocabulary) and genre knowledge (which has changed and expanded with the new media available), we must also acknowledge the importance of learners and teachers alike becoming critically aware of the new connections between forms, contexts, meanings, and

ideologies in a wide and growing array of media. We as teachers must think about how we might creatively use new technologies for language and culture learning tasks that go beyond the 'default' mode and that help students develop the particular types of communicative competence that we desire for them.

### Using and Combining Available Instructional Resources to Achieve One's Goals

Developing multiliteracies requires an understanding of how the contexts in which communication takes place have been changed by technology. In this section we consider heuristic 3—"How can these resources be used and combined most effectively to serve the established learning goals?"—and we discuss these goals in relation to traditional and new(er) technological resources that can be used to achieve them. As for L2 reading, if the goals go beyond comprehending Written texts to include multimodal texts and materials, then a combination of traditional and new media resources is in order. It is already common in L2 education to have learners read material on the Internet, in part for its authenticity and current/topical interest, but also because understanding content on the Internet is part and parcel of 21st century life. In reading online, However, simply having access to dictionaries or translation tools does not necessarily promote long-term learning of a word or overall comprehension. Many teachers strongly discourage the use of online translation tools, but instead of categorically forbidding students to ever use translation tools, perhaps it might be prudent to teach them how to use such tools to produce an even better understanding of a text than they would have been able to by using the more traditional tools and strategies for L2 reading.

### Evaluating Language Learning Resources and Assessing Students' Use of Them

Assessing students' use of digital resources in meeting the established goals is a challenging, multifaceted, and dynamic process, one that goes beyond the 'effective/ineffective' dichotomy often present in assessments of learning outcomes. Certainly, language learning outcomes are important measures of a digital tool's value, but one must establish that those outcomes are based at least in part on students' effective use of the digital tool being investigated. Before we can really talk about assessing students' use of a given resource we need to address the larger issue of digital tool evaluation in general. Keeping heuristics 1–3 in mind, if we opt for a digital tool, then we need to look (at a minimum) at the tool's affordances; the experiences and expectations of our particular students; and the language learning environment itself, both inside and outside the classroom. Assessing Students' Use of Language Learning Resources (LLRs). Whereas affordances speak to an LLR's potential for success in meeting our goals, a large part of choosing the right LLR for particular curricular goals requires an evaluation of how learners (and teachers) manage to successfully use technological resources. In order to conduct such an evaluation, one needs to have a clear and compelling record of actual process data. That is to say, capturing a record of what learners are actually doing while engaged with an LLR can provide more direct evidence of the LLR's efficacy. Such data may be collected via input logging software, video screen capture programs such as Camtasia, or eye-tracking technology. These data can show us the choices learners

make when interacting with a program or interlocutor via an LLR and the effect of these choices on their interlocutor.

## 3 RESULTS

This research examined the English language practice and studying in two different departments: the Computer Science department (CSD) and the Information Technology department (ITD). The results were analyzed in terms of the two departments common learning outcomes (base ESL Skills). Further, classification of data based upon background, previous learning experiences and gender-related factors were initially considered but were not included due to lack of resources. These however may indicate a suitable follow up research in the future.

## 4 CLASSIFICATION OF DATA

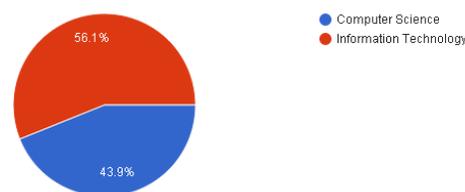
- Gender ratio and total for each department
- Main statistical results and patterns
- Qualitative issues and quantitative issues

## 5 CRITERIA

1) How much time is spent on ESL per week? 2) What is the overall response? 3) How many participated percentage in comparison to total number of students? 4) What technical challenges and issues were raised? 5) How effective was the follow up process and other means of communication? 6) What percentage of the total student population at UHD the 1<sup>st</sup> year CSD and ITD intake represents? 20% or less? 7) How effective was the questionnaire? 8) How typical is this scenario as compared to other universities and institutes within the KRG? 9) How was the quality and the efficiency of the learning experience affected? 10) How they reacted to the qualitative questions at the end of the assignment? 11) any other pattern or factors which can be detected or suggested for further study? The study shows the 10-part questions with it is analysis, as it shows below. Our results from this study are presented in the following tables and figures. A total of just over 180 students across the two departments of Information Technology (ITD) and Computer Science (CSD) with a ratio of 60 (CSD) : 120 (ITD) students. The overall participation was 107 (out of 180) respondents, giving a 60% level of the total population understudy. The questionnaire was treated as assessed practical work, carrying 10 marks (25%) of the total assessed work for the semester. 56.1 % from ITD compared to 43.9 % from CSD. Subjectively, these ratios confirm observational information and daily class interactions and assessments about the relative levels of the students' abilities, skills, awareness and interests in ESL within both departments. See Fig. 4

- Q1 : Percentage participation in the two departments.

What is your Department ? (107 responses)



**Figure 4** Time spent on ESL online numbers per department participated

One fifth (20.6 %) or 22 of the total students who participated reported nil use of technology & resources online for ESL. Those who spent about 5 hours per week amounted to 73 individuals (68.2%). Those who spent about 10 hours per week amounted to 10 (or 9.3%). Finally, those who spent more than 10 hours were only 2 out of 107 students (1.9%). The spread of these statistics do not follow a standard deviation curve (classic bell-shaped graph). The majority therefore are content with around 5 hours per week on ESL. Compared to a work load of 12 hours per week per semester, and assuming students adhere to a 1:1 ratio of class time compared to home work time that figure represents an average of 70 hours of CALL applications compared to a total of 168 hours of contact, class-based tuition time (41.6 %). See Fig 5, Q2/How often do you go online to study English or access resources for ESL? Tick the relevant box. The Results is shows in Figure 5.

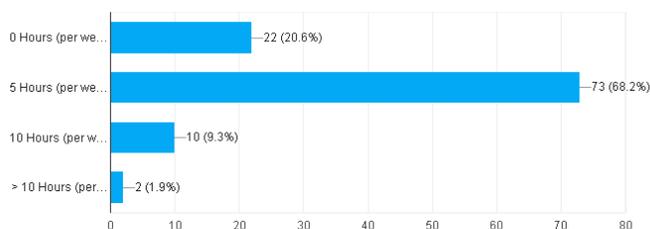


Figure 5 online to study English

A variety of resources were used to complete aspects of the questionnaire this reveals a narrow band of the usual sites, with the exception that Kurdish /English CALL dictionary scoring the maximum followed by English Grammar, the the BBC web site / resources third, and others taking lowest hits - see Fig 6.

Q3 is Search using up to three (3) suitable websites, and then describe (giving a URL link) for the following terms: 'A.I.'; 'e-Commerce'; 'Software Engineering'; 'I.T.'; 'OOP'; 'English Language Grammar'; 'SDLC'.

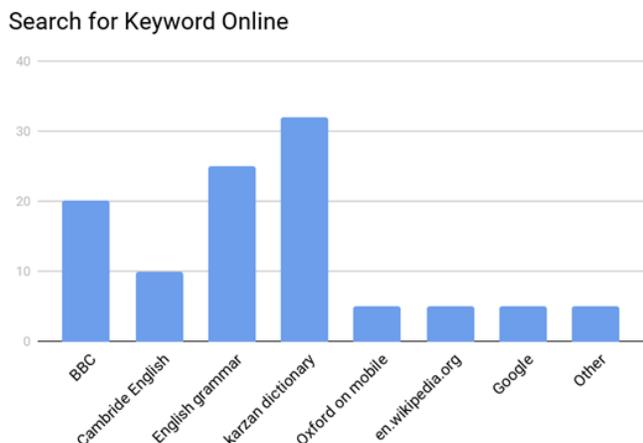


Figure 6 Q3 Search for Keyword

Q4 is reading comprehension using online technology, the results is shows in Figure 4,5 . Questions 5-8 were used to test various comprehension skills and gave expected

percentages of participation and accuracy across the population. Qualitatively, these kind of tests show us an overall picture.

Q4/The fact that the writer of the passage thinks that we can kill dolphins more easily than they can kill us

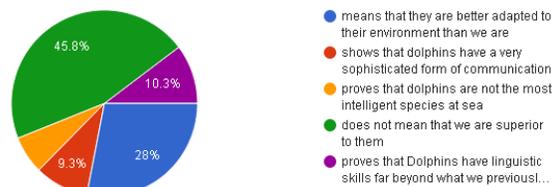


Figure 7 Reading Part 1

Q4-2) One can infer from the reading that ---

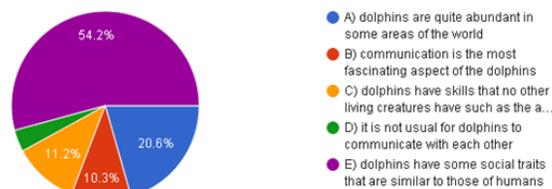


Figure 8 Reading part 2

Q5 is concern with watching an online video then answer specific questions.

- This is a link (URL) to a website (YouTube). Listen to the video clip - stop the video after 7:25 minutes, then answer the questions in table1 below:
  - what's the story here?

Answers:

Choice	No. of Answers
1. About Sara vacations	15
2. About Sara Getting Driving License	85
3. Others Answers	7

Table 1 Q5 what's the story here? Results

Q6 what are the names of the characters? The answer of the students is shows in table2 below:

Choice	No. of Answers
1. 1.max 2.sara 3.renee 4.ben 5.simon	90%
2. 1- sara 2- max 3- ben 4- renee	10%

Table 2 Q6 what are the names of the characters? Results

Q7 is concern about knowing the vocabulary of the words or the meaning of it. The question and it is answer is shows in table 3 below:

Q7 Select the correct words from the list below which describe these.

Choice	No. of Answers
1. 1-Riding 2-Running 3- Standing 4-Writing 5- Listening 6-Washing and/or cleaning 7-Shouting 8- Fixing and/or repairing 9- Climbing 10-Ironing	90%
2. Others	10%

**Table 3** Q7 word vocabulary

Q8 is concerned with how students are using e-mail in their projects and communication with teaching staff and other students, the Q8 details as it shows below Find a suitable webmail server (e.g. Yahoo, msn, Google) then describe the steps required to create an account, to write a short message with an attached picture to one of their colleagues or friends. Then upload a screen capture of the sent email message to the Google Form, the results is in table 4. From the point of view of easy of use, accessibility and problem-solving / communication Question 8 revealed that 65% were able to use web-based email and email servers, and therefore were able to create and send content reliably. 35% however experienced difficulties and needed assistance and guidance to navigate the technical issues.

Choice	No. of Answers
1. Students could manage to create a mail and send a SMS	%65
2. Students have issues deal with the technological service.	%35

**Table 4** Student using E-mail issues

Q9 is concern on online English learning game. 47 out of 107 students managed a high score, followed by 35 out of 107 how had a low score. 10 out of 107 did not respond to this exercise, while 5 out of 107 gave a non-valid response. 43.9 % of the respondents therefore managed to complete the game and obtain an achievement – a little below the 50% threshold we were anticipating for the novel introduction of a serious game – an overall 90.6 % of the population who had attempted this question for this study. Table 5 shows the results. Question 10, was a qualitative assessment of the experience of doing a serious game as part of the learning process.

Choice	No. of Answers
1. People with High Score	47
2. People with low Score	35
3. People not Response	10
4. Not Appropriate	5

**Table 5** English Game Score Results

Tutor Observations and Qualitative / Qualitative assessment

### A. Autonomy and motivational issues:

The fact that the questionnaire was part of the assessed course work ensured a high percentage of the population under study participation. Earlier observation on voluntary instruction methods into e-learning (generally) and CALL (specifically), showed that participation ratios were well below the 50% mark (both departments). Therefore an incentive and motivational factor had to be clearly designed into the curriculum. Based upon pre-questionnaire activities experience from the previous semester, it is clear that the strategies and the environments are obviously very limited by traditional education methods and in particular showed the absence or minimal experience as far as CALL and e-Learning methods in ESL. There are two factors that must be born in mind when attempting to analyse these results. First, the absence of any formal CALL infrastructure. Second, the undergraduates in their first year (stage 1) from both departments who have taken English Language have had no grading whatsoever and the class therefore is very non-homogeneous in terms of their skills, capacities, potential, and previous experience in ESL. We, and other workers, would therefore, definitely benefit from including appropriate measures to deal with these matters when any CALL strategies, methods and implementations are to be considered for future plans.

### B. Access

Why is it that 20% of the student population under study would not spend any time looking into using the technology for ESL is a very significant point and we would again benefit from a parallel study looking into the use of this same technology when applied for all other non-ESL related academic use. It is proposed that both cultural and technical issues have a role to play. Also the fact that there are no formal CALL infrastructure at the university and hence its absence in the curricula means the students have less incentive to explore this medium. The highest ranking group, or 68% were those with the next level in terms of hours (5 per week), followed by 9.3 % who usually spend about 10 hours, those who exceeded this were a very small minority of 1.9%! From subjective observation, these latter represent the top 2 % of the combined classes – those who incidentally exhibited uncharacteristically high motivation, autonomy and also exceptionally high potential. It is therefore very indicative that for a CALL strategy to be implemented, experienced and skilled instructors, those who both have long traditional ESL and CALL experience in whatever form or fashion, represent a clear priority (Mutlu, Eroz-Tuga. 2013). With the diffusion of web based instruction, wide-spread use and availability of entertainment content, the inclusion of serious games as part of the ESL / CALL strategy seems to be a promising area for future research. While this may somewhat be tricky to achieve in terms of official educational objectives and criteria, plans to explore such challenges and opportunities must at least be considered in the wider context of this technology, and specifically at least in most universities (if not colleges as well) where IT and Computer Science departments exist, and include ESL too. This would provide a very interesting hybrid strategies and methods.

C. Interest and Awareness Traditional teaching methods in Kurdistan, and if this study in just only minimally reflective of

this pattern, must undergo an accelerated phase of evolution and development. The incorporation of e- Learning methods, blended learning and any form of distance learning must be firmly based upon clear and solid ESL foundations which are modern and effective. Expertise in Language (ESL) development can not be forsaken by relying upon CALL no matter how brilliant or advanced the system may be. The need is there for equally brilliant and creative instructors to address the social and traditional factors which often limit the success and realization of the students' potential in developing their English Language skills. More research and parallel studies within the university and between populations of other universities may be recommended into bringing out more information and therefore preparing the ground for meaningful ESL methods and strategies. We have identified at least two shortcomings and simultaneous areas of potential interest for expansion and progress within the College of Science and Technology at UHD:

1. CALL infrastructure must be a balanced equation made up of an effective technological component, and a complementary human component in the form of a well experienced and creative ESL teaching staff.
2. Adoption of a Graded Teaching Pattern in the methodology of ESL tuition and curriculum [27] would be of considerable advantage – if not absolute necessity to deal with the disparate levels of skills and capacities of these undergraduates. Combining such methodologies within the scheme of ESL /TESL in post secondary education at UHD in particular and Kurdistan Region generally may be an interesting and valuable suggestion for future research.

## 6 CONCLUSION

Young people today learn digitally mediated modes of expression largely from one another outside of school, and they engage with digital technologies in ways that are often more varied and more sophisticated than those they encounter at school [23]. This raises the question of how teachers should approach the incorporation of technology in their teaching. In this article, we have outlined some of the issues related to technology and language use in order to set the stage for a series of heuristic questions to guide teachers and researchers in determining for themselves how best to incorporate technology in their teaching and research. When teachers and learners use technology purposefully, and not just for its own sake, they will inevitably engage in some degree of critical reflection. Just as the technology of writing made language an object of analysis, today's communication technologies provide a means for language learners to become aware of, and actively reflect on, their own and others' communicative practices. What is important for language teachers and learners alike is to attend to the particular ways technologies influence how they use language, what communicative consequences follow those uses of language in terms of understanding and learning, and what social consequences might come of using one form of technology versus another. We believe that reflection on these matters is key to fostering communicative proficiency in a second/foreign language.

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## REFERENCES

- [1] Pozas, F.J.M., 2009. Tips for Teaching with CALL. Practical Approaches to Computer-Assisted Language Learning. *Indian Journal of Applied Linguistics*, 35(1), pp.139-143.
- [2] Chapelle, C. and Jamieson, J., 2008. Tips for teaching with CALL: Practical approaches to computer-assisted language learning. Pearson Education.
- [3] Kern, R., 2015. Language, literacy, and technology. Cambridge University Press.
- [4] Bolter, J.D., Grusin, R. and Grusin, R.A., 2000. Remediation: Understanding new media. mit Press.
- [5] Scolari, C.A., 2009. Mapping conversations about new media: the theoretical field of digital communication. *New media & society*, 11(6), pp.943-964.
- [6] Hong, J.S., Han, D.H., Kim, Y.I., Bae, S.J., Kim, S.M. and Renshaw, P., 2017. English language education on-line game and brain connectivity. *ReCALL*, 29(1), pp.3-21.
- [7] Dooly, M., 2015. It takes research to build a community: Ongoing challenges for scholars in digitally-supported communicative language teaching. *Calico Journal*, 32(1), p.172.
- [8] Godwin-Jones, R., 2014. Games in language learning: Opportunities and challenges.
- [9] Vasudevan, L., 2015. "A picture can do things words can't": Transforming representations in literacy research. *Handbook of Research on Teaching Literacy Through the Communicative and Visual Arts, Volume II: A Project of the International Reading Association*, p.187.
- [10] Chun, D., Kern, R. and Smith, B., 2016. Technology in language use, language teaching, and language learning. *The Modern Language Journal*, 100(S1), pp.64-80.
- [11] Chun, D., Kern, R. and Smith, B., 2016. Technology in language use, language teaching, and language learning. *The Modern Language Journal*, 100(S1), pp.64-80.
- [12] Kazak, S., Wegerif, R. and Fujita, T., 2015. The importance of dialogic processes to conceptual development in mathematics. *Educational Studies in Mathematics*, 90(2), pp.105-120.
- [13] Walther, J.B., Hoter, E., Ganayem, A. and Shonfeld, M., 2015. Computer-mediated communication and the reduction of prejudice: A controlled longitudinal field experiment among Jews and Arabs in Israel. *Computers in Human Behavior*, 52, pp.550-558.
- [14] Bailey, K.M., 2007. Practical English language teaching: speaking. Higher Education Press.

- [15] Chun, D., Kern, R. and Smith, B., 2016. Technology in language use, language teaching, and language learning. *The Modern Language Journal*, 100(S1), pp.64-80.
- [16] Steward, D., 2007. Placement Outcomes for Modern Language PhDs: Findings from the MLA's 2003–04 Survey of PhD Placement. *ADE Bulletin*, 141(142), pp.75-102.
- [17] Chun, D., Kern, R. and Smith, B., 2016. Technology in language use, language teaching, and language learning. *The Modern Language Journal*, 100(S1), pp.64-80.
- [18] Zarate, G., Lévy, D. and Kramsch, C.J., 2008. *Précis du plurilinguisme et du pluriculturalisme*. Archives contemporaines.
- [19] Thorne, S.L., Black, R.W. and Sykes, J.M., 2009. Second language use, socialization, and learning in Internet interest communities and online gaming. *The modern language journal*, 93(s1), pp.802-821.
- [20] Lotherington, H.E.A.T.H.E.R. and Ronda, N.A.T.A.L.I.A., 2014. 2B or not 2B: From pencil to multimodal programming: New frontiers in communicative competencies. *Digital literacies in foreign and second language education*, pp.9-28.
- [21] Huntington, S.P., 2013. 25 The Hispanic Challenge. *A Language and Power Reader*, p.6.
- [22] Ghareb, M.I. and Mohammed, S.A., 2016. The Effect of E-Learning and the Role of New Technology at University of Human Development. *International Journal of Multidisciplinary and Current Research*, 41, pp.299-307.
- [23] Jenkins, H., Purushotma, R., Weigel, M., Clinton, K. and Robison, A.J., 2009. *Confronting the challenges of participatory culture: Media education for the 21st century*. Mit Press.
- [24] Tosuncuoglu, I., 2012. ESL/EFL, Technology and Motivation: The Turkish Case. *Journal of Emerging Trends in Engineering and Applied Sciences (JETEAS)* 3 (4): 677-681.
- [25] Ludwig J., Fu, D., Bardovi-Harlig, K., Stringer D 2009. Serious Games for Second Language Retention. *Interservice/Industry Training, Simulation, and Education Conference (IITSEC)* Paper No. 9164 Page 10 of 10.
- [26] Hendrix, M. et al 2013. Integrating Serious Games in Adaptive Hypermedia Applications for Personalised Learning Experiences. *The Fifth International Conference on Mobile, Hybrid, and On-line Learning*.
- [27] Ding, J. 2017. The Application of Graded Teaching Pattern in College English Classroom Teaching. *Creative Education*, 8, 272-278.