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FROM THE EDITOR

by **Jarosław Krajka**

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Who could imagine that the world of education in general, and foreign language education in particular, will suddenly turn completely digital and online at the spur of the moment? This is what happened to much of the world in March and April, with school and university lockdowns due to COVID-19 pandemic and threat of virus spread. Overnight, millions of teachers all over the world had to shift to the online mode of teaching, seeking most usable software solutions, adapting their instructional approaches and methods to the affordances of the tools on the one hand and student capacity on the other. All of a sudden, it turns out how different faces of technology-assisted language teaching are needed: not only real-time videoconferencing lessons and shiny self-study interactive quizzes, but also slightly forgotten web-based activities like treasure hunts or WebQuests, which proved to be a successful solution for low-tech contexts. Even more surprisingly, educators turned back to the good old email, with mail-based instruction seen as a last resort in case of low-quality internet connection and inadequate provision of computers at students' homes.

The global pandemic and the resultant online education calls for well-tested and well-researched instructional procedures, presented in the form that is practical enough for language teachers to readily implement in their day-to-day teaching. This is what a practical-academic journal like *Teaching English with Technology* attempts to do, bridging CALL researchers and language teaching practitioners from all over the world together in a quest for viable educational solutions.

The April issue of our Journal, as usual, addresses a wide range of topics featuring prominent use of innovative computer-assisted teaching procedures. To start with, **Budianto Hamuddin, Fathu Rahman, Abidin Pammu, Yusring Sanusi Baso** and **Tatum Derin** (Indonesia) examine the phenomenon of cyberbullying in blog-based instruction, showing most frequent motives and recommending solutions. Quite interestingly, the research shows that cyberbullying in a foreign language may not always be malicious, but rather stem from a need for linguistic wordplay.

Another article from the same part of the world, “Challenging EFL students to read: digital reader response tasks to foster learner autonomy” by **Truly Almendo Pasaribu**, deals with the problem of learner autonomy in reading instruction. The study shows that digital reader response tasks in a Moodle-based reading class enabled learners to plan, execute and evaluate their own learning, motivated learners to engage in meaningful language learning experience and encouraged them to nurture social dimensions of autonomy.

Teacher training for teaching with technology is a topic tackled by **Natalia Góralczyk** (Poland) in her contribution “Identity and attitudes towards the past, present and future of student teachers in the Digital Teacher of English programme”. It is interesting to see what effect an MA training programme specializing in English language teaching with technology exerts on its graduates’ perceptions of identity and perceptions of their future career.

David Ockert (Japan) revisits international student telecollaborations via *Skype*, subjecting experimental data to renewed data processing procedures. The study shows the potential of *Skype*-based virtual exchanges for foreign language teaching, especially in Japan, while still warning teachers of potential problems and dangers of using this method and proposing ready-made solutions to them.

As if competing with previously mentioned Pasaribu’s article about *Moodle*, “Effect of blended learning using Google Classroom on writing ability of EFL students across autonomy levels” by **Wahyu Diny Sujannah, Bambang Yudi Cahyono** and **Utari Praba Astuti** (Indonesia) shows its major competitor, *Google Classroom*, in action while teaching writing. The writing ability of the EFL students taught by blended learning via *Google Classroom* was better than that of the control group. Besides, the high autonomous EFL students outperformed the low autonomous EFL students in their writing ability.

Another popular educational tool, *Telegram*, is the environment in which the research into learning strategies, vocabulary acquisition and podcasting conducted by **Atefeh Elekaei, Hossein Heidari Tabrizi** and **Azizeh Chalak** (Iran) was framed. As the study revealed, the choice of cognitive strategy in podcasting-based instruction via *Telegram* significantly affected the level of vocabulary gain and retention. In other words, learners who applied more cognitive strategies had higher levels in vocabulary gain and retention.

The issue is concluded with a media review of *Storyjumper* online tool by **Chioma Ezeh** (USA). The author describes the functionalities, educational opportunities and potential drawbacks of the program, showing how interactive storytelling with *Storyjumper* can lead to successful use of translanguaging in the language classroom.

We wish you good reading and good health in those hard times!

CYBERBULLYING AMONG EFL STUDENTS' BLOGGING ACTIVITIES: MOTIVES AND PROPOSED SOLUTIONS

by **Budianto Hamuddin¹**, **Fathu Rahman²**, **Abidin Pammu³**

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Abstract

Cyberbullying during English teaching involving Information Communication Technology (ICT) is an exciting topic to study. Seeing how new language learners share their thoughts and feelings through blogs as alternative learning media and how they engage in cyberbullying in their online interactions may reveal the motives beyond cyberbullying acts. This present study used the mixed method approach to understand the motives to tailor the anti-cyberbullying recommended solutions. The data is extended from a 3-month preliminary study to an 18-month investigation of 711 cyberbullying comments archived in 251 blogs owned and actively used by EFL university students at English Department of Universitas Lancang Kuning (Unilak). The analysis revealed the major students' motive is just to have fun (70%), followed far behind by the motive to fight back (8%), to express upset feelings (7%), and other motives (12%). 16 students with the highest track record of cyberbullying in their blogging activities were interviewed to discuss their motives for cyberbullying other students whom they have known for at least more than 18 months. Results indicate cyberbullying among language learners seems to be an act of *playing with language* or *linguistics wordplay*. Cyberbullying seems to be a sort of *language exaggeration* for EFL students who possess limited competence in English when they interact in the online network. Based on the results, a new definition of cyberbullying was offered to accommodate the linguistic nature of cyberbullying. Using the primary health care framework by the World Health Organization (WHO), this present study designed a practical list of ready-made classroom activities to combat cyberbullying in four different steps, i.e. promotive, preventive, curative and rehabilitative.

Keywords: cyberbullying; motives; solutions; linguistic wordplay; blogs

1. Introduction

For the last two decades, institutions around the globe have students who are part of a generation with a technological leap (Wekke et al., 2017). Students of the new generation primarily hold

positive perceptions when they learn with technology (Rahman & Weda, 2018). Various social networking sites have been used effectively in educational contexts (Junaidi et al., 2020; Nofita et al., 2019; Susilo, 2019), including blogs as alternative learning media in language teaching (Gachago & Ivala, 2016; Muslem et al., 2018). Blogging offers practicality in students' learning process as they can access all kinds of information (Aljumah, 2012; Jung, 2020) to gain a relevant and comprehensive view of various topics (Hamuddin & Dahler, 2018) anywhere, anytime and with anyone around the globe (Rahman & Asyhari, 2019).

Blogs improve students' skill, motivation and willingness to learn. Amir et al. (2011), Miyazoe & Anderson (2010), and also Lubis & Hamuddin (2019) are some studies that demonstrated blog as one of the most suitable media for teaching English. Echoing the use of other social networking sites (SNS), the rising trend of blogging activities has bred a social media phenomenon of cyberbullying. The feedback in the comment feature in blogs seems to have become the perfect area not only to train one's ability in writing but also to engage the blog content owners in aggressive manners. The content of the commenting feature of blogs was found to hold not only comments, questions, and answers but also critics and bullying activities. Statements that counted as cyberbullying seem to be the cause of the blog's change from a peaceful media of learning English into a 'war zone.'

Researchers tend to see cyberbullying as a form of harassment and have generally described it as an effort to shame or make fun of someone else through their information and communication technology (ICT) (Corcoran et al., 2015). This present study's first stance is quite similar with these studies in seeing cyberbullying as an act intended to harm others (emotionally) using information and communication technology (ICT). However, 'to harm' has become a rather vague descriptor because some adolescents consider posting mean pictures is 'okay' while posting mean videos is not (Hollá et al., 2017), and people who witness cyberbullying incidents often do not recognise the events as cyberbullying at all because they perceive different levels of 'hurt' in an online interaction (Kokkinos & Antoniadou, 2019). It seems that cyberbullying causes different levels of hurt, so this present study sees cyberbullying has a range,. Therefore, this present study defines cyberbullying as anything that makes people feel upset at the least and feel terrorised at the most by text or typographic emoticon messages through information communication technology.

Seeing cyberbullying among university students of English Department of Universitas Lancang Kuning (Unilak) in Indonesia who interact and communicate on their blogs with their

limited knowledge and vocabulary of English raises a question: “Do they (language learners) truly intend to harm their friend?” Finding their motives has become an interesting linguistic topic to be analysed. This present study is also intrigued in how these new language learners are expressing their feelings and thoughts by cyberbullying on social networking sites since online language notoriously allows significant room for creativity in using words (Pavel et al., 2015).

Furthermore, since going online is a daily part of students’ lives, it is alarming that cyberbullying is an endemic problem to students’ learning and emotional health (Nwufo & Nwoke, 2018). Some researchers see it as an epidemic problem as well due to its widespread nature (Perry, 2019). It is also a pandemic issue because it is a problem that causes emotional distress for students around the world (Kim et al., 2017). The contemporary digital era should make all educational institutions aware of cyberbullying as student that are trapped in a cyberbullying cycle could have destructive emotional and health effects in long term.

When it comes to threats that harm people’s emotional states and health, the World Health Organization (WHO) has proposed a framework that has served as a basis for solution schemes around the world to address them. This present study referred to WHO’s primary health care approach to design a solution scheme for cyberbullying. The approach responds to sharp changes in the economic, technological, and demographic level that impact the health of huge populations (Primary Health Care, 2019). Extending the data from the 3-month preliminary study by Hamuddin et al. (2019) which has identified cyberbullying motives, this present study investigated the cyberbullying acts committed by EFL university students during 18 months to integrate them with the proposed solutions for cyberbullying in the form of practical activities that are ready-made for teaching language. The resulting anti-cyberbullying scheme may contribute to keeping learning using online network stay maximal.

2. Background to the study

2.1. Cyberbullying motives

Motives describe the reasons, usually not noticeable or hidden on purpose, that someone has for doing a particular action (Sheldon & Bryant, 2016). As actions of cyberbullying are high in diversity, the motives are diverse as well. The most common reasons include jealousy, boredom, revenge as well as the non-confrontational and seemingly non-consequential nature of cyberbullying (Hinduja & Patchin, 2010; Slonje et al., 2013). Francisco et al. (2015) found that

merely disliking a person is enough for students to cyberbully another, and some cyberbully just for fun. The latter motive is supported by Farkas (2016), who found the motive of wanting to joke, accompanied by reasons of broken relationships and group affiliation. Caetano et al. (2017) found immaturity, lack of respect, lack of affection, and superiority. Abbasi et al. (2019) prove that social relationship is the foremost motive among male cyberbullies, and anonymity among females. Finally, Tanrikulu & Erdur-Baker (2019) state that personality traits such as online disinhibition, moral disengagement, narcissism and aggression, if not addressed, may leave students to eventually engage in cyberbullying due to such motives as entertainment, revenge, harm and dominance.

These studies identified cyberbullying motives by surveys, interviews, or both. Even though they might seem formidable in their own right, as Nardi (2018) states, relying on only these methods leaves a gap of real understanding because the students surveyed could give false reports of their impressions. For this reason, the present study intends to interview selected students who are true cyberbullies based on their track record of frequent cyberbullying comments in the blog archives in 18 months. With this method, this present study contributes to study on cyberbullying by offering results based on authentic cyberbullying acts that complimented the instrument of interviewing the participants.

2.2. Seeking solutions to cyberbullying among EFL university students

Nowadays, many universities actively direct students to utilise blogs to assist their language learning (Zou et al., 2020). Students' writing skill is best taught in ways that encourage their active and consistent participation, and a blog is a suitable means to achieve it (Miyazoe & Anderson, 2010). Blog-integrated writing instruction puts students in a collaborative learning environment where they get to publish a work as proof of their learning progress (Azodi & Lotfi, 2020). According to Özdemir & Aydın (2020), the process-based writing instruction influences students' motivations to write both digitally and on papers with pens.

Blogs are a practical learning tool due to the diversity of learning objectives that can be accomplished with them. Their interactive features enable students who may be too intimidated to speak in a foreign language to flourish in communicating through written media (Adel et al., 2016). Blogs improve students' knowledge-construction as they explore topics, develop their writing style by framing what they know into a blog post, build their confidence by posting their hard work, and even polish their tact and critical thinking by giving feedback onto others' posts

(Lee & Lin, 2019). The wider blogging community scaffolds not only students' language, but also their cross-cultural awareness (Chen, 2019).

Though blog is perhaps the most academically-inclined social networking kind of sites, cyberbullying still exists in the interaction among the blogging community, including among EFL university students (Hamuddin et al., 2018). Cyberbullying continues to be proven to negatively impacts the classroom social climate as it disturbs the students' sense of belonging, leading to impairment of mental well-being (Kashy-Rosenbaum & Aizenkot, 2020). Cybervictims receive effects from the social attacks and cyberbullies are also at risk as they justify their attacks (Gámez-Guadix & Gini, 2016). However, there is a limited amount of studies on cyberbullying in blogs, especially compared to the sheer amount of studies on cyberbullying in other social networking sites such as *Instagram*, *WhatsApp*, etc. Thus, there is a research gap in terms of solutions to cyberbullying among EFL university students' blogging activities.

As Carter & Wilson (2015) state, cyberbullying is a 21st century health care phenomenon. Many researchers agree that no matter how 'normal' cyberbullying may seem in the Internet culture, it cannot be unaddressed. One of the most consistent suggestions to deal with cyberbullying is ignoring and blocking the cyberbullies (Davis et al., 2015). Developing cyberbullying detection programs is also a common recommendation (Kumar & Sachdeva, 2020).

Previous studies recommend these actions with different views on cyberbullying. Some saw it as a prevalent issue, while some did not. Some consider it as linked to personality traits, while some put weight in external influences. This study contributes to the anti-cyberbullying effort in that it sees cyberbullying not in terms of whether or not it is prevalent or an internally-motivated behaviour, but by acknowledging that it is a complex issue that does exist in students' daily lives. Cyberbullying's consistent presence in higher education makes it an endemic problem, its ability to attack multiple people continuously makes it an epidemic problem, while its existence in nearly every country with internet access makes it a pandemic problem (Kim et al., 2017; Perry, 2019). As it is a problem that causes adverse effects on students' daily lives via damaging their emotional well-being and health, this study refers to a primary health care approach proposed by World Health Organisation (WHO) as it is designed to be the basis of solution schemes for problems that are endemic, epidemic and pandemic. The approach consists of five types of care, namely, promotive, preventive, curative, rehabilitative and palliative. By

reviewing existing literature, this present study tries to find studies' tested solutions for cyberbullying and see what type of care they belong in the proposed anti-cyberbullying scheme.

3. Method

3.1. Participants and research design

This study aims to see how new language learners share their thoughts and engage in cyberbullying in blogs which they created as their alternative learning media. This study used purposive sampling to determine the subjects this study will examine. For this purpose, one university was found that uses blogs as an alternative learning media as a policy of the courses, namely the English Education Department (PBIG) in the Faculty of Teachers Training and Education (FKIP) in University of Lancang Kuning (Unilak) (henceforth; PBIG FKIP Unilak). Thus, the population encompasses all PBIG students who have followed or are still following the courses that utilise blogs as alternative learning media as part of the curriculum.

This study looked into the archives of 251 students' blogs (N=36 male; 216 female). Out of the total amount of comments in the blog archives, cyberbullying comments were focused on. Then selected students who were proven to have the highest track record of cyberbullying were interviewed to obtain in-depth understanding of their motives. This present study used the phenomenological approach, which is a primary qualitative attempt to understand empirical matters from the perspective of those being studied (Vagle, 2018). The phenomenological approach has been chosen because it sees experience in relation to the phenomenon of interest, so this present study could explain 'cyberbullying' among the university students of PBIG Unilak.

The quantitative data comprise cyberbullying comments, while the qualitative data are interview excerpts illuminating upon the motives of interviewees selected for their frequent cyberbullying acts. This method was used by a preliminary study by Hamuddin et al. (2019) that was focused only on identifying cyberbullying motives and the present study is an extension of this preliminary study. Since foreign language learners in Unilak actively used blogs, it is interesting to examine whether the motives students have for cyberbullying have changed over time. Table 1 compares the data of the preliminary study with this present study.

Table 1. Data extension from preliminary study to this present study

	Preliminary Study	Present Study
Duration	3 months	18 months
Blogs	157	251
Total comments	6,259	13,033
Cyberbullying comments	255	711

The preliminary study examined 255 comments that were related to cyberbullying out of 6,259 comments archived in 157 blogs in the span of three months from January to March 2018. Hamuddin et al. (2019) found three main motives of cyberbullying, which are just to have fun (74%), to fight back (9%) and to express upset feelings (5%). Meanwhile, this present study extended the data to 18 months, from January 2018 to July 2019. Taking 251 blogs under scrutiny, this study found 13,033 comments and identified 711 cyberbullying comments.

While the preliminary study stopped at identifying the motives, this present study confirms whether the motives changed over the period of 18 months and proposes practical solutions based on the primary health care approach of the World Health Organization.

3.2. Findings

Data analysis of 251 blogs recorded high cyberbullying activities among EFL university students. Analysis of the textual data indicated the motives of these students to cyberbully their classmates. The interviews of 16 students who were selected for their impressive cyberbullying track record explored the motives. It was surprising that the findings do not echo previous studies that almost always state cyberbullying were motivated by harmful intentions. The three most prominent motives seem to be just for fun (70%), to fight back (10%) and express upset feelings (6%). When these results are compared with the preliminary study by Hamuddin et al. (2019), it can be seen that the motives do not change significantly over time. The motive of having fun remains the dominant motive, followed by the motive of fighting back; the percentages decreased by 4% and 1% respectively. Meanwhile, the motive of expressing upset feelings increased by 3% from what the preliminary study had found. Table 2 shows all the identified motives, including the individual motives that were combined as “others” due to being the less frequent motives.

Table 2. Motives for cyberbullying

Main	Others
Just to have fun (70%)	Easy (3%)
To fight back (8%)	No consequences (3%)

To express upset feelings (7%)	Disliking others (3%)
	To harm others (2%)
	To provoke others (2%)
	To feel better (1%)
	Boredom (1%)

The only change found from extending the data from 3 months to 18 months is only quantitatively, and even then it is not significant. Although further study should be conducted to explore the other motives which have increased based on the extended data, this study shows that the three main motives of cyberbullying stayed the same in terms of order as compared to the preliminary study.

3.2.1. Motive 1 – ‘Just to have fun’

The analysis of 711 cyberbullying comments revealed that the motive of cyberbullying ‘just to have fun’ is the dominant motive of cyberbullying (70%), and it is dominant by a large margin compared to other motives that were revealed. Excerpts 1, 2, and 3 show how some of the selected students that were interviewed described this entertainment-related motive.

Excerpt 1: *Saya cuman canda kok, gak ada kok saya benci sama orang-orang itu. Ngapain juga benci sama teman sekelas. Beneran hanya sebagai candaan doang kok.*

Translation: *I was **just joking**; I don't hate those people. Why would I hate classmates anyway? I swear, it's just joking.*

(SS.16-01:31)

Excerpt 2: *Disini saya cuman pengen candain, kawan-kawan biar lebih seru di blognya. Kalau isinya nggak ada kek gitu sepi, haha.*

Translation: *I **just want to make jokes** to my friends, so it'll be **more fun in blogs**. If there's no (comments) it would be lonely, haha.*

(SS. 14- 01:02)

Excerpt 3: *Kalau ngisengin kawan di blog bukan cuman pernah sering malah [...] awalnya iseng sih ,sebagai candaan, trus keasyikan balas-balas nyerangnya.*

Translation: *Playing with friends in blogs doesn't just happen a lot, actually [...] at first it was just playing, then eventually it was **so much fun** to keep replying their attacks.*

(SS.13- 02:22)

Excerpts 1, 2, and 3 clearly depict the students' light-hearted attitude in committing cyberbullying without any trace of maliciousness. This result echoes the findings from the

preliminary study, which had found this motive as the dominant one by 74%. Even when extended to 18 months, the vast majority of students still cyberbully as a joke and has no intention to hurt their friends.

3.2.2. Motive 2 – ‘To fight back’

The second main motive is to fight back (8%), though it seems to be the minority compared to the first motive. Excerpts 4, 5 and 6 show the students who cyberbullied with this motive.

Excerpt 4: [...] *Orang-orang itukan nyerang saya di blog ntah apa-apa yang ditulisnya, macammacam lah [...] yah saya balas aja, biar seri, hahaha!*

Translation: *Those people **attacked me first** on my blog. Nonsense was what they wrote, like a lot [...] well, **I just fight them back**, so we're even, hahaha!*

(SS.13- 3:12)

Excerpt 5: *Saya sih awalnya hanya ngebalas ke yang mulai duluan tapi kawan-kawanya ikut ngerecokin yah saya serang aja mereka semua di blog mereka juga [...] trus jadi rame deh akhirnya.*

Translation: *In the beginning, I just fight **those who bully me in the first shot**, however, when his friend gets involved, well I just **fight them all back** in their blogs [...] then it just get crowded in the end.*

(SS.7- 7:05)

Excerpt 6: [...] *Jadinya rame! Soalnya sudah banyak yang ikut campur dengan ngata-ngatain gitu deh [...] biasanya sih sambil ketawa-ketawa ngebacanya cuman kadang kalau ada komen yang nyinggung, saya jadi sewot juga tak bales aja biar rame sekalian hahaha.*

Translation: [...] *It became a riot! Cause everybody is getting involved by sending bad things [...] even though, sometimes I am laughing when reading it but when the words irritated me, well I get annoyed so of course, I'll **fight everyone too**, so it's crowded, hahaha.*

(SS.3- 2:06)

The students explicitly stated that they cyberbullied to fight back their classmates who cyberbullied them first. Excerpts 4 and 6 indicate that even this act is a fun activity. Excerpts 5 and 6 show this motive is not solely directed to one cyberbully because many others join in. This motive shows that cybervictims could easily become cyberbullies.

3.2.3. Motive 3 – ‘To express upset feelings’

The third main motive is expressing their feelings (7%). Excerpts 7 and 8 show the students' justifying and reasoning their engagement.

Excerpt 7: [...] *Ya, bully itu sebenarnya dilakukan e.. karena bentuk kekesalan [...] emm.. jadi saya, tidak bias mengungkapkan nya langsung e.. jadi saya bully dengan online [...], saya tipikal orang yang nggak bisa mengatakan aku gak suka kamu, tapi kalau misalnya melalui online, mungkin bisa saya utarakan langsung [...], melalui bully inilah saya mengutarakan kekesalan saya*

Translation: [...] *Yeah, the bullying is actually done emm.. **because of some annoyed feelings** [...] emm.. so I personally cannot express it directly emm.. so I bully online [...], I'm typically a person who cannot say I do not like you directly, but if it's online, it's easier [...], through bullying **I can express my upset** [...].*

(SS.11- 6:02)

Excerpt 8: [...] *Yah kesel aja digituin terus. [...] yah saya balas aja. Dia nulis-nulis gitu di blog saya, saya balas lebih di blognya biar rasa dia.*

Translation: *Well, **it's annoying** being treated like that over and over. [...] Well, so I replied. They keep writing that on my blog, so I write that on their blog, let them feel it.*

(SS.16- 2:12)

In Excerpt 7, the non-confrontational nature of online interaction might seem like a motive as well, though it was mainly as a factor that makes expressing their feelings more manageable. Excerpt 8 also displays the motive of fighting back but indicates that the student's stronger motive is to express their upset feelings. This proves that students view cyberbullying as an outlet for their feelings.

4. Discussion

Since 2015, students' blog started its debut as an alternative teaching medium in several courses at PBIG FKIP Unilak. Different lecturers made blogs a required tool for students' assignments and exams for *Reading, Writing, Argumentative Writing, Error Analysis, Introduction to Linguistics, Semantics and Pragmatics, and Discourse Analysis* courses. The students were obliged to create personal blogs where they were going to write a short article on a certain theory, essays on a given topic, give feedback on their classmates' post contents, interact with the freedom of choice among posting their opinions, ask questions or give criticism. Without restrictions on how they would post comments in blogs, such as not obliging them to use proper grammar, the students continued to use blogs for months, as evidenced by the considerable increase of comments.

The students used their blogs by posting their essays, pictures of their notes, slideshows of their class presentations, article reviews and multimedia materials to improve their English skills. However, their use of blogs as alternative learning media might not be maximised because

their interaction in blogs included many cyberbullying acts, as seen from the 711 cyberbullying comments. By knowing the reasons behind cyberbullying, the scheme for an anti-cyberbullying campaign can be realized.

As a surprisingly huge majority of the students engage in cyberbullying just having fun, this study felt that most students do not truly intend to hurt other's feelings in a 'bad' way. Moreover, this phenomenon might be a discursive practice for EFL students' social networking sites' activities. This hypothesis is corroborated by the significant content of the comments showing the students' limited knowledge and vocabulary of English, which are notorious as barriers for ideal communication.

Nevertheless, the students are not entirely on *the right track* in learning English through blogs as some students indicated that cyberbullying made their online learning 'unproductive.' Whether or not the majority of students are cyberbullying because they just want to have fun may not matter, because in the end the people who receive the comments are feeling hurt, as indicated by Excerpts 4, 5, 6, 7 and 8. If cyberbullying is left to continue for the long term, it may cause conflict among the students themselves, ruin the e-learning course and cause students to feel disengaged during lessons and their education as a whole.

For this reason, the practical solution proposed here is based on World Health Organization's primary health care approach, which is used as a basis for other threats that are similarly as widespread as the phenomenon of cyberbullying due its flexibility to be applied to deal with phenomena that harm and endanger individuals' lives. This approach has universal coverage, which means it includes five types of care. Promotive care encourages individuals to spread positive influence, prevention care includes stopping acts that threaten people, curative care treats individuals that have been compromised, rehabilitation care supports their recovery while palliative care relieves individuals' suffering at the end of their lives. The proposed anti-cyberbullying scheme includes only the first four types because there seems to be no palliative solutions that could be recommended. This may be due to the shortage of studies of cyberbullying among elderlies, and the limited evidence indicating that cyberbullying affects people who are in their last years of life. However, cyberbullying definitely affects students both online and offline because for most students of this generation internet is not just part of their lives but it is their entire life. The first thing that any educator must do to combat cyberbullying is to take cyberbullying seriously and not dismiss it as 'kids being kids.' With this mindset, educators can implement this list of practical classroom activities to fight against cyberbullying.

Table 3. Practical activities based on the primary health care framework

Type of Care	Activities
Promotive	<ul style="list-style-type: none"> • Teach the students about netiquette to create a culture of online responsibility • Teach the students on ways to avoid victimisation • Make it clear that the students' technology rights will not simply be taken away as punishment • Establish a regular presence of authority in the e-learning platform • Give examples of constructive comments for students to emulate and surpass
Preventive	<ul style="list-style-type: none"> • Redirect students' from cyberbullying by encouraging them to post positive comments • Remind students of the acceptable online behaviour/netiquette when they are engaging in cyberbullying • Show students that their teachers and lecturers will not let cyberbullying slide • Proactively let students know that they are able to alert other and future incidents to the authority • Bring up the incidents and guide students to talk to each other about it and reflect on their behaviour
Curative	<ul style="list-style-type: none"> • Give short story and art prompts revolving themes of cyberbullying and any other aggressive online or offline behaviour • Involve the parents to be sympathetic and supportive • Explain that careless and harmful online behaviour can affect their reputation and career
Rehabilitative	<ul style="list-style-type: none"> • Sharing posters on anti-cyberbullying or supporting cybervictims • Use novels or movies about cyberbullying as part of the lesson plan or assignments • Consistently build students' reflective thinking

4.1. Promotive care

Several studies have tested and recommended promotive solutions that aimed to get individuals, organisations and society as a whole to take action against cyberbullying. Promotive efforts are a combination of educational, organizational, policy and regulatory support for positive behaviours. For EFL university students who are cyberbullying in their blogging activities, promotion effort is an important first step in directing current students toward the right track in using e-learning-based alternative media. In the e-learning context, promotive care should be designed as a process to improve the students' ability to maintain and improve internet ethics. Promotive strategies include posting comment on a student's blog about their article or essay establishes authorities' presence on the online forum, encouraging students to post more constructive comments, ensuring that students are aware of acceptable online behaviour (netiquette) to emphasise a culture of online responsibility, warning students not to put anything sensitive onto internet, be it to the public or privately to an online friend, and explicitly telling

them that the teachers and lecturers will not simply punish them and take away their technology rights. Instead, informing them of the clear consequences of engaging in online behaviours that are not tolerated would be the most useful strategy.

4.2. Preventive care

In a comprehensive sense, prevention is defined as a deliberate attempt to stop any disturbance, damage or harm to a person or society. A comprehensive preventive effort comes in three layers. Primary prevention takes place when people act on themselves or the environment to stop the threat. Secondary prevention occurs when the problem is identified and treated as early as possible. Tertiary prevention involves treating people to prevent their conditions from worsening.

In the cyberbullying context, preventive care entails monitoring the condition of individuals or the online forum, providing ‘creative’ or ‘tailored’ strategies to prevent cyberbullying, giving incentives for students to produce positive comments, reminding students of the netiquette, asking bystanders to alert them of any other cyberbullying incidents, steering students to a more sympathetic mindset by guiding them to understand the impact of such actions instead of outright simply punishing them, as well as letting them reflect on their behaviours to make them a part of the solution.

4.3. Curative care

Curative care is an activity or a series of activities meant to make people better. Curative efforts aim to heal or at least minimize the effect of the problem that has inflicted individuals. Curative solutions come in the form of minimizing the presence of cyberbullies, controlling the intensity of cyberbullying, and bettering the cybervictims’ emotional states. Practical curative solutions can be done by providing creative and expressive outlets for students that may attract them better than cyberbullying in their blogging activities, prompting students to post stories or create art about topics related to bullying or other social aggressive behaviours, reaching out to the students’ parents to remind them to similarly take on a supportive stance for the students and to not lead them toward giving punishment, and reminding the students that cyberbullying does not reflect their identity and has the possibility of affecting their reputation, even career.

4.4. Rehabilitative care

Rehabilitative care aims to empower individuals to maintain the quality of their lives. Rehabilitative efforts cover activities to stabilize, improve and restore individuals' well-being. In general, rehabilitation tries to return the cyberbullies and cybervictims into the regular rhythm as students, where they can gain maximal learning from their students' blogs. A standard strategy is spreading institution-issued anti-cyberbullying and cybervictim-supportive posters and brochures. A better strategy is for teachers and lecturers to give students the assignment to write a review, make a review video or create art on popular bullying novels such as Robin York's *Deeper* or movies such as Nelson Greaves' *Unfriended*. Other rehabilitative activities are using similar story-based material than a dry and objective text about cyberbullying to emotionally involve the students or building empathy by making reflective thinking become an ingrained habit.

5. Conclusion

The present study defines cyberbullying as anything that makes people feel upset at the least and feel terrorised at the most by text or typographic emoticon messages through Information and Communication Technology. It is interesting that new language learners engage very frequently in cyberbullying on blogs they initially created to learn and exchange academic feedback. Extending the investigation of cyberbullying motives from 3 months to 18 months also proves that the motive of cyberbullying 'just for fun' remains the dominant reason behind cyberbullying, at least in the online discourse in student blogs. Nevertheless, even if some students were *playing with language*, there are others whose emotional health and well-being are being threatened by cyberbullying acts. Therefore, this present study used the primary health care approach proposed by the World Health Organization because it systematically addressed people's essential needs for optimal human development. This study proposed an anti-cyberbullying scheme covering promotive, preventive, curative and rehabilitative ready-made practical classroom activities to teach students to become good digital citizens during their e-learning process. This scheme fosters students' reflective thinking and is not exclusive for university lecturers; it can also be implemented by teachers of secondary-level schools.

Future studies may contribute to the development of this anti-cyberbullying scheme by tailoring it for elementary-level students because young children are also exposed to the same

unacceptable and dangerous online behaviours. One aspect worth noting is the huge majority of female EFL bloggers compared to the male EFL bloggers in this study, indicating the possibility of gender influencing the type of cyberbullying acts and language that they use online (Cooper, 2006), as well as the motives revealed in both this study and Hamuddin et al. (2019). Moreover, future studies are needed that would reveal more insight into the motives behind cyberbullying from students in more competitive majors or organisations, and tailor the anti-cyberbullying scheme for the related institutions.

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CHALLENGING EFL STUDENTS TO READ: DIGITAL READER RESPONSE TASKS TO FOSTER LEARNER AUTONOMY

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Abstract

Reading and technology are believed to have a strong link with learner autonomy. This research aims at investigating how digital reader response tasks in a reading class promote learner autonomy. The students were given reader response tasks which challenged them to respond to texts using digital infographic and presentation tools in *Moodle* forum. The data of this case study, collected from questionnaires, online records, and reflections involving 25 participants, were analyzed based on the domains of autonomy. The findings indicated that digital reader response tasks in a *Moodle*-based reading class enabled learners to plan, execute, and evaluate their own learning. The findings also showed that these online tasks did not only motivate learners to engage in meaningful language learning experience, but also encouraged them to nurture social dimensions of autonomy.

Keywords: digital reader responses; reading skills; learner autonomy; e-posters

1. Introduction

Studies have extensively argued that reading helps learners acquire a foreign language. It is an essential skill needed by EFL learners to excel in academic contexts as texts provide both linguistic and cultural information on the foreign language. However, reading is one of the least developed skills in Indonesian context. Tests indicated that Indonesian people tend to have low reading interest; Indonesia ranks 60 out of 61 countries in terms of reading interest (Miller & McKenna, 2016). The complexity increases when Indonesian learners in higher education are required to read English texts. The lack of autonomy prevents them from finding more learning materials as well as getting reading exposure outside the class, which can be the reasons why learners read ineffectively. Therefore, it is crucial for teachers to develop materials and activities which encourage learners to exercise their autonomy and engage in meaningful reading experience.

Learner autonomy has been discussed by researchers in the field of education, who have emphasized the importance of autonomy in EFL learning. Little (2004) believes that to be autonomous, students need to learn beyond teacher-guided instructions. In line with that, Tassinari (2012) states that autonomy involves learners' active roles in learning English. Another essential aspect of autonomy is the ability to take control of the learning materials. A more recent study (Ardi, 2017) shows how technology promotes autonomy because students are free to manage their learning and cognitive processes. Similarly, Hazaea and Alzubi (2018) report that the use of *WhatsApp* develops a sense of learner autonomy in reading contexts as it forms an interactive and reflective platform for the learners to learn outside the class. Furthermore, as their findings suggest, this mobile app can be utilized to share summaries, extra readings and tasks. These studies highlight the essence of students' active roles and self-evaluation in autonomy.

Promoting learner autonomy in the Indonesian context may encounter cultural challenges. Due to the long prevalence of teacher-centredness, this teaching approach has "been commonplace in the Indonesian school culture" (Zulfikar, 2009, p. 14). This pedagogical characteristic is highly influenced by a famous Javanese philosophy "*manut lan pinurut*" or "to obey and to follow". Furthermore, a teacher in Indonesia is called "guru" implying the philosophy "*digugu lan ditiru*" or to be obeyed and to be seen as models (Herawati, 2010). These two ways of living encourage students to seek guidance from teachers when they are learning. However, since students should be encouraged to take responsibility for their own learning, teachers are challenged to find approaches that can develop learner autonomy.

As a sizable volume of research has highlighted the relationship between technology and autonomy, further research on the implementation of the reader-response approach in technology-enhanced language learning to promote autonomy in the Indonesian context should be conducted. Reader-response based tasks could help students develop a sense of learner autonomy since the tasks focus on how learners create meaning. Iskhak (2015) suggests that a reader response approach encourages students to construct meaning by making a connection between the text and their personal experience. He further finds out how it affects students' personal and linguistic growth. Reader responses in the form of e-journals also engage and motivate low achieving students. Hence, the use of this approach, which requires students to play a central role in creating meaning in a technology-enhanced classroom is believed to promote autonomy. The advent of technology helps teachers to deconstruct the teacher-centred long-standing tradition and shift to a strong student-centredness. Since the link among reader response, technology and learner autonomy in an Indonesian context has not been investigated

yet, this study fills the gap by reporting how digital reader-response-based tasks in *Moodle* foster learner autonomy in a reading class.

2. Literature review

2.1. Reader Response Theory

Reading is a central path to learn new information (Grabe, 2014). Information from written texts can be interpreted from different perspectives. Abrams (1971; cited in Karolus, 2013) mentioned that there are four elements of literary works, namely the works, the authors or the artists, the nature or the universe, and the readers or the audience. We can interpret the work by referring to the work itself. Secondly, we can interpret the meaning of the work by linking the discourse to the authors. Next, the nature or the social context surrounding the context of the text can be used as tools to analyze it. Finally, the texts can be analyzed from how readers create meaning through reader responses.

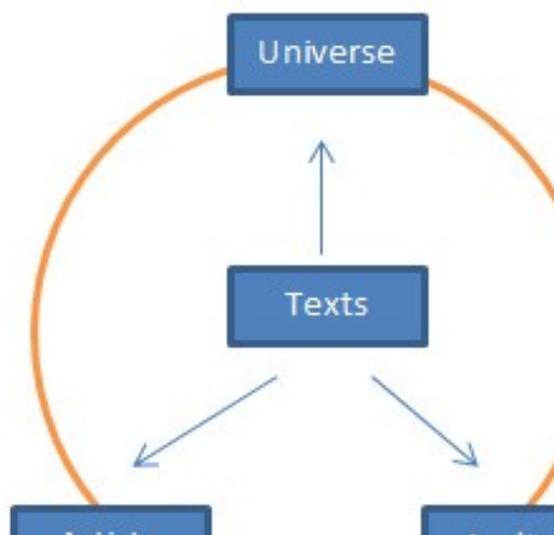


Figure 1. Interpretation of texts

Based on these perspectives, the reader response theory emphasizes the role of meaning created by readers. This approach is then considered applicable in language learning, particularly in engaging students to read (Gonzales & Courtland, 2009; Mizuno, 2015). By using a reader response theory, students do not only analyze the writers' purposes in creating the text, but also create meaning by using their background knowledge when interacting with the text (Rosenblatt, 1990). In this case, through reader-response based activities, readers are encouraged to play an active role in interpreting the meaning of the texts.

Studies have elaborated some benefits of the reader response theory in the classroom. Carlisle (2000) found out that the implementation of the reader response theory does not only help students learn the semantic domains of the texts, but it also encourages students to explore the text and give critical responses. In line with the previous findings, Gonzales and Courtland's study (2009) highlights the link among reader response, readers' interests and critical thinking. Mizuno (2015) strengthens this argument by proposing that responding to reading materials gives "a positive impact on the cognitive process of reading" (p. 18). Laboid (2016) suggests that the implementation of reader response journals in class helps students know themselves and gain "a sense of ownership of their learning experiences and to gain confidence and self-efficacy which are likely to affect positively their reading and writing attainments." (p. 111). He further suggests some reader-response activities that are in line with the teaching of reading strategies, such as outlining, paraphrasing, referential questioning and applying ideas to the real world. However, a recent study by Biglari (2017) shows that although there is no straightforward relationship between reader responses and students' comprehension, classroom practice based on reader responses decreases students' anxiety.

Considering the positive relationship between reader-response approach and language learning, this research focuses on elaborating the implementation of digital reader response theory in technology-enhanced EFL reading class.

2.2. EFL reading and learner autonomy

EFL learners in Indonesia face complexities in reading foreign language texts due to linguistic and cultural constraints (Masduqi, 2014; Pasaribu, 2017). EFL learners have limited experience in reading EFL texts, which hinders their comprehension of the texts. The hands-on activities in the classroom are not sufficient for learners to construct meaning and reflect on what they learn. Masduqi (2014) also adds that students' low interest in reading is affected by their lack of motivation. Students tend to be more passive as they wait for teachers to initiate them to read. Moreover, students may expect to learn new vocabulary and grammatical patterns of the texts from the teachers. Hence, it is a major concern for teachers to create a learning environment that promotes learners to take control of their own learning.

Promoting learner autonomy has been a major concern for educators and scholars (Ardi, 2017; Chia, 2005; Dafei, 2007; Little, 2007; Littlewood, 1999). Littlewood (1999) summarizes that learner autonomy is the learners' capacity to take responsibility of their own learning. This involves the ability to own the learning process including setting goals and evaluating the process. Little (2007) explicates that autonomous learners have independent characteristics and

are able to prepare the materials autonomously. Dam (2011) encourages teachers to make learners capable of taking responsibility by planning, carrying out the plan and evaluating the outcome, further suggesting practical autonomy-oriented tasks: logbooks, portfolios and posters.

Literature has also documented the strong link between technology and learner autonomy (Ardi, 2017; Hazaea & Alzubi, 2018; Darasawang & Reinders, 2010; Lee, 2011). Darasawang and Reinders (2010) explain how the online program, *My English*, makes learning opportunities available to all students and allows the teacher to expand learning to learners' real life. The materials and activities which are available anywhere and anytime encourage students to exercise autonomy. Furthermore, Lee (2011) shows how blogging can promote autonomy and intercultural competence. The research identifies some principles of learner autonomy: cognitive engagement, self-directedness and critical reflection. Furthermore, Ardi (2017) finds that a Schoology mobile learning platform helped students to exercise autonomy as they took responsibility for their "learning management, cognitive process, and selection of learning materials" (p. 55). He added that technology facilitated student-teacher interactions and allowed students to explore online materials. A more recent study by Hazaea and Alzubi (2018, p. 50) explains how the use of *WhatsApp* which offers "flexibility of time and place for reading" can give a sense of autonomy, motivate learners and encourage interactions. From these studies, it can be highlighted that technology which offers a more flexible learner-centred environment enables students to take responsibility for managing, directing learning, choosing the learning materials and exercising cognitive skills.

The reader response approach is believed to share similar principles with the concept of learner autonomy. Granger, Black and Miller (2007) indicate that reader response played a positive role in fostering students' reading comprehension and attitude. After responding in their journals and participating in classroom discussions, the students "increased either their independent, instructional, or frustration levels of reading comprehension" (p. 14) based on Qualitative Reading Inventory-3. This approach gives students, as readers, the freedom to choose the topics and manage their own learning process (Laboid, 2016). The reader response approach in the digital environment is assumed to encourage the development of learner autonomy since the readers or students are given space to make plans and take proactive roles in the learning process. In making e-posters, students are encouraged to monitor their understanding and strategies because self-monitoring is a key concept in autonomous learning processes (Tassinari, 2012). Lee (2012) implemented a reader-response e-journal, which helped students to achieve and evaluate their learning goals. The combination of technology-enhanced

instructions and face-to-face interaction proved to allow more freedom to students to explore various reading materials and experiment with their projects.

3. Methodology

3.1. The aim of the study

This study aims at answering these research questions:

1. How were reader-response-based tasks in *Moodle* implemented in a reading class?
2. How did they foster learner autonomy in the class?

To achieve the goal, the current study employed a case study design which focuses “on a single unit to produce an in-depth description that is rich and holistic” (Ary, Jacobs, & Sorensen, 2010, p. 454). A good case study uses “a number of different research tools available in order to increase the validity of the study” (Davies, 2011, p. 104). The focus of the study is on investigating the perceptions of a single unit which refers to a class as a social practice. The data were collected using several data collection procedures, including questionnaires, reflections and online archives, to see the holistic view of the case.

3.2. Participants and the context

This research aims at elaborating how the reader-response-based-tasks were implemented in Basic Reading II Class to foster learner autonomy. This research employed a case study design involving 25 students (7 male and 18 female), who were taking Basic Reading II class in the second semester of English Language Education Study Program in a private university from February to June 2017. In this class-based research, the teacher as the researcher formulated learning goals aiming at improving students’ reading skills and learning autonomy. I was responsible for developing the instructions and materials in *Moodle*. I posted instructions for each task so students could plan their personal aims, choose reading materials, and choose partners for group challenges. I also uploaded the rubrics of the tasks for the students so that they could set the targets when doing the tasks. Taking a role as a facilitator, I also commented on the students’ works to help them monitor their progress. As a researcher, I made careful observations of the class, developed the questionnaires and analyzed the online records with consent from the students.

3.3. Course design

The course was given in the second semester of the English Language Education study program. This class employed a blended learning method, which enabled the students to learn from both face-to-face interaction and technology-enhanced learning using *Moodle* as the learning management platform. Research elaborated that *Moodle* facilitates easy access for students in Language Teaching Media (Wulandari, 2016) and Paragraph Writing (Pasaribu, 2016) classes. Technology-enhanced activities as seen in Table 1 were applied in the reading class to enable students to learn and manage their own learning.

Table 1. Technology-enhanced and regular classroom tasks/activities

Technology-enhanced tasks/activities	Regular classroom tasks/activities
Students access and follow online instructions and rubrics.	Students share their projects.
Students choose the reading texts from the Internet.	Students discuss the texts and their responses.
Students make the reader response projects (using various digital tools).	Students receive feedback from peers.
Students upload the projects and comment on their friends work.	Students brainstorm for the next projects.
Students prepare for the reading class by reading the materials.	Students consult the projects with their teacher.

There were five online tasks that the students uploaded to *Moodle* and presented them in class. These challenges required them to use digital apps: *Moodle* Forum, *Canva*, *Piktochart*, and *Prezi*.

- Reading Challenge #1: Students write a reader response to expository texts in the form of paragraphs through *Moodle* Forum.
- Reading Challenge #2: Students create a reader response to expository texts in the form of paragraphs through *Canva* and *Moodle* Forum.
- Reading Challenge #3: Students write a reader response to biographical texts in the form of paragraphs through *Piktochart* and *Moodle* Forum.
- Reading Challenge #4: Students write a reader response to narrative texts in the form of alternate endings through *Moodle* Forum.
- Reading Challenge #5: Students create a reader response to narrative texts through *Prezi* and *Moodle* Forum.

The challenges required students to:

1. choose reading texts for their projects,

2. find new words and use them in new sentences,
3. summarize the main ideas or conflicts found in the texts,
4. relate the texts with their experience.

3.4. Data collection tools and procedures

The data were collected from questionnaires, students' reflections and online records. The first section of the questionnaire was developed based on the domains of internal and external reading motivation (Allen, 2013). The second one was developed using Dam's simplified model of autonomy: planning, carrying the plan and monitoring (Dam, 2011). The questionnaire, consisting of six items on motivation, four items on planning, four items on executing the plan, and four items on monitoring, was distributed using *Google Forms*, which was embedded in *Moodle*. Respondents (n=25) responded a 5-point Likert scale (from 1= "strongly disagree" to 5= "strongly agree.") The open-ended questionnaire had two questions on 1) benefits of online reading challenges and 2) difficulties when doing online reading challenges. This study also analyzed the students' reflections which were uploaded to *Moodle* to show how they experience autonomy in a technology-enhanced reading class. Moreover, other online records, including the screenshots of the instructions, materials and rubrics, were presented in this study to enrich the elaboration of the online class.

This study was approved by the head of the study program of English Language Education at Sanata Dharma University. Furthermore, the permission was sought from the respondents of the study. After they approved to participate in the study, they accessed the questionnaire on *Google Forms* at the end of the course.

4. Findings and discussion

The implementation of an online platform allowed the lecturer to use different digital tools for different purposes. There are three parts of the online modules, namely reading materials, reading strategies, and reading challenges. The sections, the digital tools, and the purposes of using the digital tools in *Moodle* are shown in Table 2.

Table 2. Digital tools in *Moodle*

Sections in <i>Moodle</i>	Digital Tools	Purposes
Reading Materials	PDF files, Document files, <i>Prezi</i> , <i>Canva</i> , and <i>Piktochart</i>	Students accessed these materials to read the texts and the mindmaps of the texts.
Reading Strategies	<i>Youtube</i> , <i>Moodle</i> Forum, and <i>Google Forms</i>	Students used these tools to

Reading Challenges

Canva, Piktochart, Moodle Forum, and Prezi

know different reading strategies and to monitor their own reading strategies. Students used these tools to do the reading challenges individually or in groups.

As seen in Table 2, students could access PDF files, MSWord documents, infographics from *Canva*, *Piktochart*, and *Prezi* presentations in *Moodle*. The students were encouraged to be autonomous in accessing these materials outside the class using their personal computers or mobile phones. The materials available on the learning platform enabled students to self-regulate when they were engaged in the learning process (Hui, 2016). The use of different applications at any time and place facilitates students' learning process. These digital tools were employed to provide a positive atmosphere which could be easily accessed by the students. Figure 2 shows the reading materials and questions uploaded to *Moodle*. The students could access the materials in the attached documents or other reading websites before or after the class.

The screenshot displays a Moodle course page with the following content:

- Reading Material - A Short Story: Charles** (with a photo of a young boy)
- Applying Reading Strategy: Questioning**
 1. How well did you remember your elementary sc
 2. Did you have a friend who did not respect his/h
 3. Why did your friend misbehave?
 4. What happened to your friend after elementary?

Think about these questions for the class discuss
- Reading Materials**
 - American Literature -- Reading stories does not only involve lingu also widens our knowledge to the culture! If you are interested in li everlasting short stories, you dont want to miss this site.
 - East of The Web -- This web features stories on crime, fiction, non humor, romance, sci-fi, and children's.
 - Classic Reader publishes out of copyright books online. So you ca of a lot of full unabridged classics.
 - Five Chapters publishes a short story in five parts every week (Mo archives list about 242 stories by 222 writers. All the stories are by authors.
 - Fairy tales of the world -- a website which offers wide range of fair the world.
 - Source:
 - 10 Websites Where You Can Enjoy Reading Short Stories and Fla
 - Reading Links

Figure 2. Materials

The materials were also uploaded in the form of *Prezi* embedded in *Moodle* (Figure 3) and they served several functions. Firstly, they showed students how to mind-map the information found in the texts using interactive graphic organizers. Studies mention that graphic organizers help students to organize ideas and see how ideas are related to one another

(Riswanto & Putra, 2012). It is also beneficial for visual learners as *Prezi* visualizes information. Secondly, the use of *Prezi* served as examples for students to do the projects which require mind-mapping and summarizing.

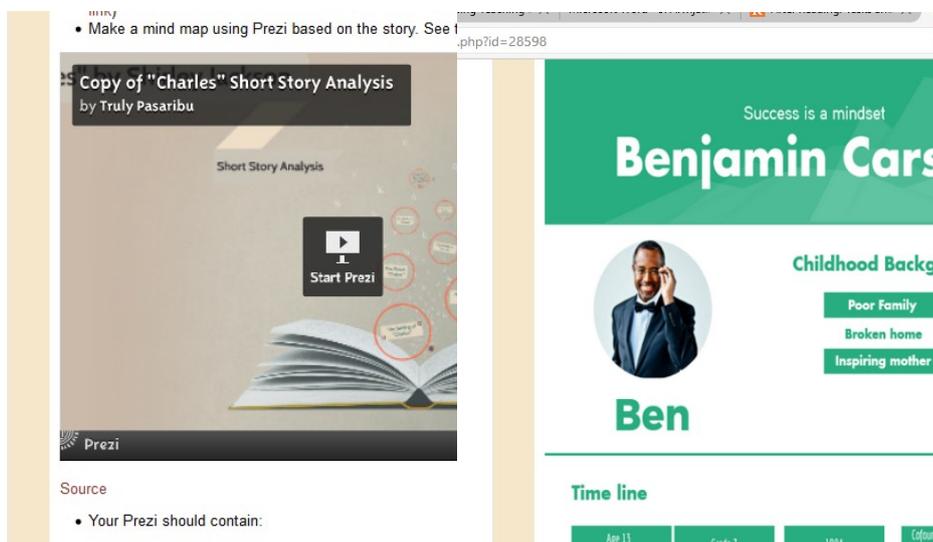


Figure 3. An example of *Prezi* and E-poster

Besides using *Prezi*, the designed module also attracted students to read or evaluate reading materials by uploading a poster based on the reading text as seen in Figure 3. The poster included pictures and pointers which made it easier for students to comprehend the texts. Moreover, it served as an example of poster presentations which were designed using *Piktochart*. The reading materials uploaded to *Moodle* using different digital apps enabled students to access the materials and control their learning styles. When they felt that they had control over their learning, they could learn faster and better (Warschauer, 1996). Statement 1 from the open ended questionnaire shows that this very participant could learn many things in an online environment and she could practice writing when doing the responses.

- (1) First, I get lots of things to be learned. Second, I can learn how to manage a good sentence on writing reflection by reading some articles. Third, I can get new vocabulary in every new article. Forth, reading challenges make me love reading more and more. Last, using the digital tools makes me more challenging because I can find new thing that I haven't learn before.

The second section was *Reading Strategies*. Knowing what strategies to use when reading texts is important to make the reading process more effective. Students need to be exposed to various reading strategies so that they could experiment and use the strategies which meet their styles and the purposes of reading the texts. Figure 4 shows that the e-learning modules consist of lessons on reading strategies in the form of *Microsoft Word* documents, *Youtube* and HTML hyperlink.

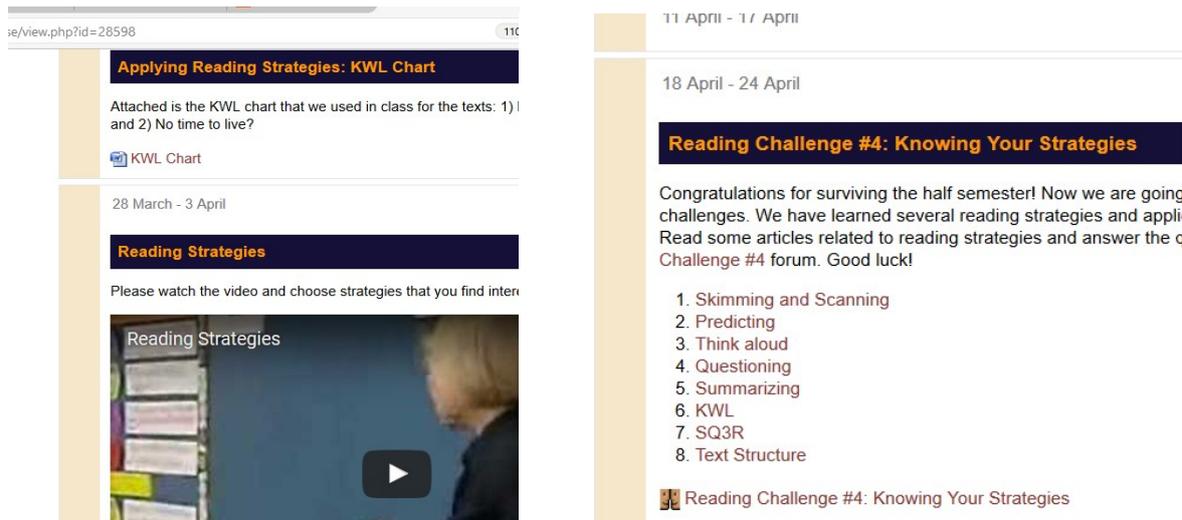


Figure 4. Reading Strategies

Questionnaires, reflections and open-ended questions showed how students experimented with various reading strategies, global, problem-solving and support strategies. The students employed global reading strategies when they utilized metacognitive strategies, such as predicting and evaluating the texts. They utilized problem-solving strategies when they dealt with problems while reading the texts, such as re-reading the texts or visualizing the information found in them. Students also employed support strategies by translating using *Google Translate* and finding vocabulary meaning in the dictionary.

Not only did the students access the materials, but also the students were given tasks under the section *Reading Challenges*. The challenges can be divided into two types, namely: individual challenges and group challenges as presented in Table 3.

Table 3. Reading Challenges

Types	Name/Digital Tools	Aims
Individual Challenges	Reading Challenge #1/ <i>Moodle</i> Forum	Students are able to: <ul style="list-style-type: none"> Summarize the expository texts Use new words in their own sentences Write responses and present them to the class Write responses and present them to the class
	Reading Challenge #2/ <i>Canva</i> and <i>Moodle</i> Forum	Students are able to: <ul style="list-style-type: none"> Identify the main ideas in the expository texts Use new words in their own sentences Analyze and evaluate writers'

		ideas
	Reading Challenge #3/ <i>Piktochart</i> and <i>Moodle</i> Forum	<ul style="list-style-type: none"> • Relate the texts with their personal experience
Group Challenges	Reading Challenge #4/ <i>Moodle</i> Forum	<p>Students are able to:</p> <ul style="list-style-type: none"> • Identify the main ideas in the expository texts • Use new words in their own sentences • Analyze and evaluate writers' ideas • Relate the texts with their personal experience
	Group Challenge #5/ <i>Prezi</i> and <i>Moodle</i> Forum	<p>Students are able to:</p> <ul style="list-style-type: none"> • Identify the main ideas and conflicts in the stories • Use new words in their own sentences • Analyze and evaluate writers' ideas • Predict the ending of the stories • Relate the texts with their personal experience work in groups to share experiences, learn from others' experiences, appreciate others.

The challenges uploaded to *Moodle* contained several parts such as instructions, examples and assessment. Students needed these parts to be able to make plans for doing the projects. Therefore, these three parts are vital to guide students in making both individual and group projects. The instructions in the learning space were developed using *Canva*. The instructions included the information on the type of challenges (individual or group), the length (words or time), the structure of the projects, the questions, the due date of the projects and the link for the submission.

Reading Text 1

Reading Challenge #1: Reflections

WELCOME TO
Basic Reading

This is your virtual learning space!
to open the links and read the mater

Reading Challenge #1
1. Please choose a reading article that you like.
2. Give and write your response by clicking this

Reading Challenge Finale: Express Yourself

Dear class,

Congratulations! You are one step closer to completing all the challenge you will have two options: mini movie and Prezi pre will be presented on June 2, 2017. Please pay attention to the assesment below.

Good luck!

Truly

Instructions and Assessment for Mini Movies

- Work in a group of 5-6 students
- Choose a short story. Don't use the short stories whi discussed before
- Make a short movie around 10 – 15 minutes based on
- Your story should meet these elements:
 - a. Organization – you maintain a clear fo story
 - b. Characters – the characters are convir
 - c. Language Accuracy – the language th accurate

Figure 4. Online Instructions

The instructions were clearer when uploaded together with examples of the projects. The lecturer gave some personal examples related to the projects, such as reflections, posters and mind-maps using *Prezi*. This section also displayed the rubrics used to assess or evaluate students' projects. The rubrics help students prepare what they needed for the projects. Clear instructions, examples and rubrics enabled students to adjust their schedules to do the task and self-evaluate their projects individually or in groups.

After the implementation of reader-response challenges at the end of the semester, the questionnaire consisting of six items on reading motivations was administered. Items (1) and (2) in Table 4 demonstrate students' internal motivation as the students engaged in the reading activities for personal engagement regardless of the outcomes. Items (1) and (2) show that the online reading activities were considered beneficial as they offered more opportunities for students to read English texts.

Table 4. Perceptions of students' reading attitude

Statement	Mean (out of 5, n=25)	Interpretation
1. Reading online texts is a positive experience.	4.4	Positive
2. In general, websites offer me more opportunities to read English texts.	4.12	Positive
3. Online reading challenges encourage me to develop reading habits.	4	Positive
4. I want to experience using online tools to do my tasks in the future.	4.36	Positive
5. Online reading challenges make me more confident in reading L2 (articles in foreign language)	3.92	Positive
6. I am confident about learning new vocabulary.	3.92	Positive
7. I read online English articles/stories because I want to improve my linguistic and cultural knowledge.	4.12	Positive

Furthermore, items (3), (4), (5), (6) and (7) in Table 4 demonstrate that students experienced positive external motivation when doing online reading. Allen (2013) elaborates that external motivation refers to the beliefs of the outcomes or expected outcomes. The students have the beliefs about the desirable outcomes of online reading. The outcomes they expected were developing reading habits (Item 3), completing reading tasks (Item 4), fostering confidence (item 5), building up vocabulary (item 6), and improving linguistic and cultural knowledge (item 7). In line with previous findings (Tassinari, 2012; Thorne, 2013), these results show that technology-enhanced reading environment affect learners' motivation positively.

4.1. Providing opportunities for students to plan and execute the plans

One indicator of becoming autonomous is students' ability to make plans. Wenden (1991) stated that planning the learning process is vital for students to be autonomous. Hence, teachers are challenged to encourage students to think about their plans. In the implementation of online reading modules, the students were given projects to make reader responses at the beginning of the course. Because there were both individual and group projects, they started to plan their reading strategy and discuss group reader response e-posters. It can be seen that the students were inclined to have the responsibilities of their learning. The data from the questionnaire in table 5 showed that students had the tendency to choose their own reading materials, evaluate them before reading, use different strategies to comprehend them and manage their time to finish the task.

Table 5. Planning ahead

Number	Statement	Mean (out of 5, n=25)
1	I choose online reading topics which are related to my personal experience or personal concern.	4.08
2	I manage my time to finish my tasks and projects in time.	4.04
3	I use various strategies to comprehend new online reading materials.	3.76
4	I evaluate the articles before choosing them as the source for my Reading Challenges.	4

The students chose articles which they could make connection to. The advent of technology makes it possible for students to choose articles which are connected to them or their surroundings. They confirmed this connection through their reflections.

- (2) I choose topics which are very fun and related with my life.
- (3) I'm not a kind of person who likes drink water. I rather drink milk than water. That's why I choose this article. I wanna know the benefit of drink enough water. So from that article I

- can change my bad habit and try to drink enough water.
- (4) I like skimming and scanning, sometimes predicting too, because skimming and scanning it doesn't need a lot of time, but when you skimming and scanning you must get the main idea or main topic it can help you to know the text structure and predicting the content.
- (5) I'm not a kind of person who patient enough if I get a long text. I always use reading strategies based on my mood. If I'm in a good mood, I often use the skimming and scanning strategies. Then, I'll make a summary to make sure that I get the valid information from the text.

As seen in the students' reflections above, they did not only plan the topics (Statement 2 and 3) they would choose, but also considered their situation (Statement 4) and mood (Statement 5). They access materials which are relevant to them to help them achieve the learning goals. These tasks provided some space for students to take control over their own learning management. After choosing their own topics, the students executed the plan. The data collected from the questionnaire in Table 6 showed that students were active in their learning process.

Table 6. Executing the plan

Number	Statement	Mean (out of 5, n=25)
5	I use reference materials (dictionary and google search) and different learning strategies to understand the text that I read.	4.32
6	I am actively involved in activities, such as discussion and class presentation.	3.92
7	I ask questions to friends or teachers when I don't understand the materials.	4.28
8	I help my friends who have difficulties in understanding the texts discussed in class or in online environment.	4.08

Teachers help learner exercise autonomy by believing that the students are able to carry responsibility and complete the tasks well (Agustina, 2017). A student's reflection explained how he was engaged in reading the materials using the strategies that he chose:

- (6) I used skimming, scanning, and also predicting to read the texts. By reading the title I can predict what topic discussed in this article. I used these strategies because it is easier for me to find and understand the main idea of the article. It saved my time, I can read the article faster, and I still understand the meaning.

This reflection shows that the student executed his own plan by choosing the content he wanted to read and his reading strategies. Students used strategies and tools which help them to reach the learning goals. Since students came to the class prepared, they played active roles in class discussion. Besides sharing responses with their friends, students also consulted their project with the teacher in the classroom. The survey indicated that teacher's support through online tools or face to face interaction is also crucial. The teacher helped students plan and monitor

their progress directly and by using online platforms. Students could choose the means of discussion suitable for them because an online environment provided various ways of interaction.

4.2. Encouraging students to self-evaluate

One characteristic of autonomous learner is the ability to self-evaluate (Gardner, 2011; Herawati 2010). This designed study encouraged students to evaluate their experience by reflecting on their projects and share them in online forum. The students were challenged to know “the quality of their work based on evidence and explicit criteria for the purpose of doing better work” (Gardner, 2011, p. 79). Reader-responses enabled students not only to create meaning, but also to monitor their strengths and weaknesses when doing the challenges as seen in Table 7.

Table 7. Self-evaluation

Number	Statement	Mean (out of 5, n=25)
9	I know my strengths when reading English online texts.	4.04
10	I know my weaknesses when reading English online texts.	4.16
11	I reflect on the reading strategies I use when doing the challenges.	3.8
12	I am responsible in achieving the goals and finishing the reading challenges I have in this course.	4.12

The most frequent difficulty that students face when doing online tasks was encountering new vocabulary. They realized that it hindered their comprehension (Statement 7) and their reading speed (Statement 8) as mentioned in these reflections.

- (7) When I met a lot of new vocabulary, it was difficult for me to understand the text.
- (8) There are 2 difficulties that I find when doing my reading challenges. First of all, when I find new vocabulary, the text becomes difficult. Second, I need a lot of time for understand the article or reading challenges than my friends.

Although they knew texts with new vocabulary would slow their reading speed, some students were challenged to find articles which allow them to learn new English words so they could enrich their vocabulary.

- (9) First, I get lots of things to be learned. Second, I can learn how to manage a good sentence on writing reflection by reading some articles. Third, I can get new vocabulary in every new article. Forth, reading challenges make me love reading more and more. Last, using the digital tools makes me more challenging because I can find new thing that I haven't learn before.
- (10) Honestly, reading a digital article/pdf can make my eyes watery or tired easily than reading a physical books/newspaper/magazine. That's why I chose this method to

shorten my time to read. Using this method, sometimes I need to re-read one paragraph before if I read too fast and can't connect the previous paragraph into the next. I've tried to use other methods, but for me, skimming and scanning is always better for me to understand longer text faster and more efficient.

They tried to solve the difficulty in understanding some vocabulary using *Google Translate* which sometimes mislead their understanding. They could easily access other dictionaries to help them understand the text. The ease of using digital tools offers them opportunity to find tools that can serve their needs. Studies have mentioned that online learning environment help students manage their own learning and monitor the strategies (Ardi, 2017; Lai & Gu, 2011; Ranalli, 2012). Student reflection 10 above shows how a student experiments with different reading strategies to find the strategies suitable for to evaluate the information she had before doing the online tasks. Not only did they reflect on the difficulties and the benefits they got, but they also monitored their reading strategies.

4.3. Enhancing collaboration

Learner autonomy does not end in self-evaluation. When students are autonomous, they are able to work together in groups (Herawati, 2011). Online tasks open opportunities for students to collaborate. When working in their own groups for online tasks, they distributed responsibilities to each member of the groups. With different responsibilities, the students in a group developed different perspectives. Some made summaries and shared how the texts or stories were organized, while others found new words and shared to the groups how to make sentences using the words. Furthermore, they also helped other groups by giving comments on other friends' projects.

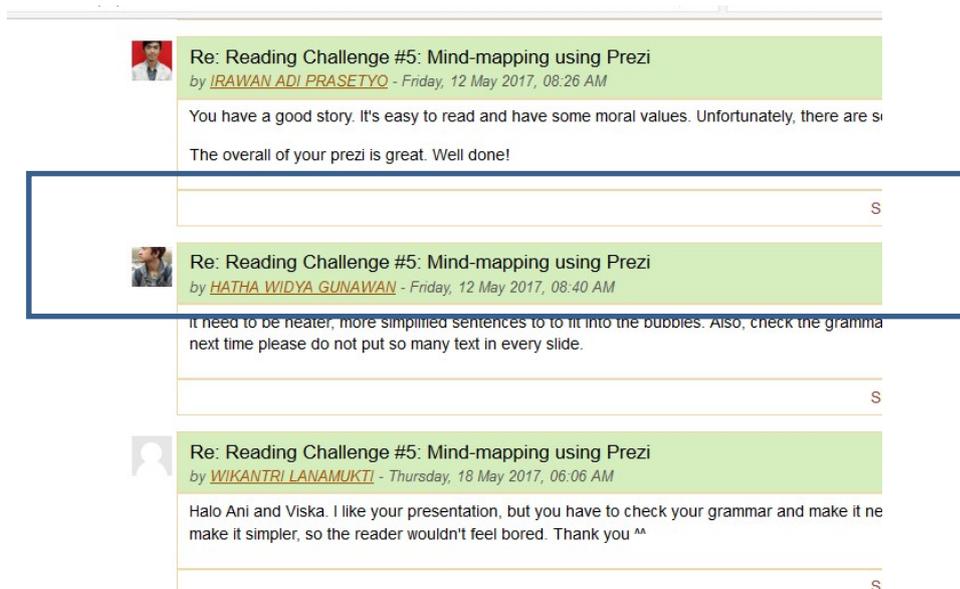


Figure 5. Students' collaboration

Figure 5 shows that students gave both positive appreciations to their friends and also suggestions to improve their projects. A visual student highlighted in the box did not only suggest other groups to pay more attention to details in the structures of the sentences, he also asked them to edit the layouts of the project. The collaborative atmosphere in doing the tasks encourages “a community of readers”. Online learning enabled learners in the class to learn from their friends and share ideas to improve their friends' works. In this case, online learning fosters collaboration which fits into Indonesian “*gotong royong*” (mutual assistance) practices.

5. Conclusion

Although the study on the relationship between digital reader response tasks and learner autonomy is limited in depth and scope, some findings are noteworthy. The implementation of digital reader response tasks offers more opportunities for students to exercise their autonomy. Students considered that these tasks were beneficial as they gave them more opportunities to play an active role in planning, reading and responding to English texts. By having access to reading materials and activities provided online, students can control their own learning by choosing the texts, adjusting their own reading time, place, media and strategies, as well as monitoring their progress. Not only do these online tasks help learners improve their reading skills, but these digital reading responses also enable them to exercise their autonomy in making plans, executing tasks and monitoring their learning progress. The findings highlight that these online tasks opened opportunities to collaborate with friends, so the tasks also encouraged learners to nurture social dimensions of autonomy. This study has shown that the

use of technology, such as infographic tools in e-forum, can be utilized to nurture learner autonomy in doing reader-response challenges for reading classes. It is then highly recommended for teachers to use digital reader response tasks in collaborative reading environment to encourage students' ownership of their learning process.

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IDENTITY AND ATTITUDES TOWARDS THE PAST, PRESENT AND FUTURE OF STUDENT TEACHERS IN THE DIGITAL TEACHER OF ENGLISH PROGRAMME

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Abstract

This study aims to investigate the identity and attitudes towards the past, present and future of the first and second year MA students in *the Digital Teacher of English* specialization conducted at a university in Poland. During the academic year 2017/2018, a questionnaire administered to 30 pre-service teachers revealed that according to James Marcia's Identity Statuses, over 60% of the participants' identity statuses were recognized as achieved, lending support to the other studies of this kind (Yunus, Malik & Zakaria, 2012; Werbińska, 2009). Furthermore, considerable insight has been gained with regard to their time-oriented attitudes.

Keywords: Digital Teacher of English; identity; pre-service teacher

1. Introduction

The subject of this research is of particular interest to those who are keen on educating pre-service teachers in technology enhanced learning as there are more and more digital teaching specializations being established. One of them, encompassing the idea of teaching English with digital technologies, started a few years ago in a middle-sized university in Poland. *The Digital Teacher of English* programme is being suggested as a model that will help overcome the barriers towards ICT integration in language education. *The Digital Teacher of English* is a fairly innovative and widely approved specialization attracting considerable significance. Therefore, it should be highlighted that the status of this programme is new and its penetration to the profession may be faced with suspicion. Since it is a relatively new specialization addressing the issue of digitization and so there are not many graduates offering insight into its effects on their identity and attitudes, the subject of *Digital Teachers of English* identity, i.e. the extent to which the students identify themselves as digital teachers, as well as their attitudes towards the past, present and future seem as an important and intriguing area of research.

The present research aims to investigate how the *Digital Teacher of English* study programme reflects the ongoing digitalization of education and what the critical factors conducing to the recognition of this study programme are with regard to Polish and international courses of a similar kind.

2. Literature review

In establishing an identity as a teaching professional, it is critical that teacher education students come to understand their identity as a lifelong learner and consequently, their own values, attitudes and beliefs as learners.” In the digital era, being a teacher of foreign languages means flexibility and adaptability to multiple changes. This transformation contributes to the change in teacher’s professional identity, which can be defined as “the concept which describes how we perceive ourselves within our occupational context and how we communicate this to others” (Neary, 2014: 14).

The role of the teacher has changed as he/she becomes now a lot more than a mere source of knowledge, to name just a few: advisor (Morrison & Navarro, 2012), coach (Bruzewski, 2017), facilitator and leader (Allen, 2015), manager (Corbett, 2017), mentor (Zachary, 2002). Such a continuing and dynamic process (Lerseth, 2013) may be provoked by innovative technologies, which encourage the teachers to reflect upon their sense of self (Curwood, 2014; Hung & Li, 2017). For instance, depending on one’s preferences, personal and professional digital identity may overlap in some contexts (Tu, 2014).

Therefore, pre-service teacher education should “embrace new pedagogical practices that are authentic and meaningful” (Nykivist & Mukherjee, 2016: 856). For a pre-service teacher willing to learn how to do so while connecting with his/her actively participating learners, the MA programme needs to provide the necessary knowledge and skills. The study programme ought to instill in pre-service teachers awareness of technology-based education and prepare them to incorporate technology consciously and effectively in the teaching and learning process. The DTE specialization will be described in the empirical part of the paper, as the context in which the research is based.

Reviewing similar study programmes globally, it might be said there are many different programmes on digital technologies which concentrate on teaching in digital learning environments, for instance, Educational Studies and Digital Technology with a specialization in Adult Education and Digital Technology BA study programme at Ontario Tech University, Education (Knowledge Networks and Digital Innovation) MA study programme at Charles Stuart University, Digital Technologies, Communication and Education MA study programme

at the University of Edinburgh, the digital teaching and learning area of specialization for the Master of Science in Curriculum and Instruction at Kansas State University, Education Studies (Digital Learning) postgraduates studies at the University of South Australia, Digital Learning postgraduate studies at Monash University, the Digital Teacher Training Programme at University College South Denmark, TELL Consult courses which focus on Technology Enhanced Language Learning, Digital Learning Design and Assessment courses offered by the Deakin University on Futurelearn, courses and workshops in ICT in didactics offered by the Centrum Edukacji i Krecacji Cyfrowej Fabryka Przyszłości, and the Digital Teacher multimedia in teaching workshops offered by Vocational Training Institution in Katowice[1].

Yet, there are not many universities or organisations offering a study programme or course of this particular kind to future teachers of English as a foreign language specifically. Similar programmes addressing technology-led language teaching, besides the study programme researched in this article, are Digital Technologies for Language Teaching (Distance Learning) MA programme at the University of Nottingham and Language Technology and Foreign Language Teaching MA programme at Justus Liebig University along with courses organized by TELLConsult[2]. Therefore, it might be assumed there is not enough data about teachers who identify themselves as *Digital Teachers of English*.

To start with, according to Werbińska (2009: 468), there are not many studies presenting the teacher's perspective on teacher's identity, not to mention the digital teacher's one. However, there are some studies on teachers' perceptions of technology or technology use with teaching foreign languages (Krajka, 2012) that might serve as examples exhibiting teachers' positive attitudes towards technology as well as willingness to use technology generally in the classroom and, more specifically, incorporate technology into their ELT teaching. The studies exploring teachers' perceptions are particularly important as their relationship with technology integration is demonstrated (Sawyer, 2017).

Krajka's (2012) study largely adds to the evidence that teachers are positive towards teaching languages with technology. He distinguishes both positive and negative perceptions towards technology. The positive ones revolve around the possibility of creating computer-assisted, student-centred learning that is individualised and motivating by a teacher whose implementation of technologies gets more innovative with experience. The negative ones are connected with teachers' lack of computer skills or lack of confidence in using them, inadequate understanding of Computer-Assisted Language Learning, their perceived lack of necessity to use technology and their later disappointment after gaining more profound knowledge of technologies.

Krajka's (2012) study shows that pre-service teachers perceive teaching languages with technologies favourably and are inclined to incorporate them, mainly to present material, on the condition that the resources needed are accessible for them. They are able to operate new programs, design authentic materials and successfully deal with technical issues. They are self-aware of their own limitations and have rather no concerns of losing authority when asking for technical help or authoring digital materials with students. However, Krajka (2012: 260) emphasizes the need to train pre-service teachers methodologically in terms of how to "encompass different applications of technology in lessons together with sample formats and lesson plans".

Other studies on teachers' perception of teaching with technology also show that teachers find inclusion of technology into their teaching beneficial but they also show that there are aspects of their attitudes that need further improvement in order to become more favourable. The study conducted by Silviyanti & Yusuf (2015) indicates that ELT teachers are highly motivated to use technology in their teaching. Some teachers, however, although knowledgeable about the advantages of technology incorporation, are apprehensive due to the lack of adequate training and support from the workplace. Similarly to the previously mentioned study, the later research done by Boersma & Getu (2016) that focuses on the incorporation of the Internet in ELT demonstrates that teachers have positive perceptions towards technology utilization in their teaching. At the same time, it also emphasizes the need to reduce barriers connected with the lack of abovementioned training and support from the work environment. Harvil (2018), who offers an elaborate overview of English language learners' teachers towards technology use, highlights teachers' daily instructional and organizational use of variety of technologies in the classroom. Teachers observe students' engagement and work efficiency due to technologies inclusion but at the same time pinpoint the barriers faced i.e. failure or unavailability of technologies and lack of knowledge which is in line with previous studies. Finally, the most recent study (Muslem, Yusuf & Juliana, 2018) confirms all the so far mentioned conclusions while adding the fact that these perceptions are regardless of demographic factors (i.e. age, gender, degree and teaching experience). Teaching with technology is perceived as beneficial by the majority of ELT teachers but some of them might have limited opportunities and resources to be explored further.

Thus, teachers seek the opportunity to develop themselves in terms of technology inclusion, which is found beneficial and central in the 21st century (Fatimah & Santiana, 2017). However, pre-service teachers might feel some technological competences are expected from him/her. In this way, the societal expectations (Królikowska & Topij-Stempińska, 2014) are

juxtaposed with teacher's perception on his/her individual role in the educational process (Beltman, et al., 2015; Kutrowska, 2008). This may lead to professional identity tensions, especially in teachers who start their career (Pillen, 2013).

To avoid this pressure, both novice and more experienced teachers should have the opportunity to become more autonomous and reflective (Szczurek-Boruta, 2016) so as to make their own decision on what kind of teacher they want to be. This identity orientation implies that these students should also be mentored in a positive way so as to promote their identity development and growth (Beltman, Glass et al., 2015; Yuan, 2016). To be able to guide the future teachers effectively, one should identify their motivations and influences, present identity development and career image, and naturally their future career ambitions. Lerseth (2013: 121-122) identifies the factors that are conducive to the development of teacher identity as follows: "students' past world experiences, experiences and connections with teachers and mentors, student recognition of their own identities, student knowledge of subject matter, teaching pedagogy, teacher dispositions, classroom management, and differing tensions." Lerseth (2013: 123) also claims that 'the idea of "Who a teacher is" truly blends with "What a teacher does" implying that pre-service teachers' experience and actions might shape their sense of identity.

The question of identity tension and the attitudes towards the past, present, and future can be aptly summarized as follows: "We owe the phenomenon of being a unique individual to the fact that we accumulate self-images in the course of our lives. Identity is constant reminding, improving, building yourself based on what it was, is and will be in our lives" (Olszak-Krzyżanowska, 1999: 18)[3]. The research about teacher attitudes tends to include examining their attitudes towards teaching and teaching profession, finding out their actual identity as teachers as well as their representation of the teaching profession (Alkhateeb, 2013; Bhalla, Jajoo & Kalantri, 2002; Andronache et al., 2014; Morales Cortés, 2016). Whatever the attitude of teachers in the aforementioned area is, it rather does not explain their attitudes towards the past, the present and the future with regard to their identity and, by the same token, does not classify the stages of identity development.

In this article, James Marcia's Identity Statures are used as adapted by Werbińska (2009). For a psychologist, the way to shape identity through exploration and commitment Marcia (1966). Exploration means searching for answers, experimenting with possibilities, organising thoughts on one's past influences, motivations and actions. Commitment, on the other hand, has to do with engaging oneself in achieving what one aims at in the long run.

Personal identity largely depends on the outcome of the presence or lack of these experiences, resulting in four alternatives referred to as "identity statures": identity diffusion,

identity foreclosure, identity moratorium, and identity achievement. Identity diffusion is a status of a person who neither explores nor engages. His/her choices are not called into question, they are temporary and made in haste. If such an English teacher is offered better money and working conditions, he/she will rebrand himself/herself and will not return to teaching. Identity foreclosure is a status which is represented by engaged but not committed people. Driven by the external influences, such English teachers do not experiment with their choices. Such a person might become a teacher because of his/her parents' influence, someone's recommendation, yet it might happen that with time and growing teaching experience his/her status will develop into identity achievement. Identity Moratorium refers to the people who explore different possibilities without committing to any of them. The different choices they make confuse them and make it difficult for their personal identity to ultimately form. These can be pre-service teachers who are still unsure about their future career even when they are almost graduating. With their knowledge and various teaching experience, they might feel lost, encounter some initial obstacles they cannot face and give up teaching. Identity Achievement is the identity status of a person whose autonomous exploration of options leads to conscious and independent engagement. These are the teachers with passion, who made their own decision to pursue teaching profession with no fear of facing challenges. They are eagerly involved in developing their knowledge and skills (Brzezińska, 2017; Marcia, 1966; Werbińska, 2009).

Before addressing personality statuses of future *Digital Teachers of English*, two studies which focus primarily on identity statuses of English teachers should be mentioned. The research of Werbińska (2009) shows that half of young Polish teachers of English participating in the study classify their identity status as achieved, followed by identity foreclosure and identity diffusion with even results, 23% and 20%, respectively, and the least frequent identity status is the moratorium (7%). In comparison with a study on Malaysian future English teachers, the latter yielded different results. More than half of students' identity are classified as achieved (55.1%), moratorium identity is very frequently claimed (39%), and identity foreclosure (3.4%) and diffusion (2.5%) are rarely maintained. It seems that both young and pre-service English teachers are mostly identity achieved, but the division of the remaining identities is different (Yunus, Malik & Zakaria, 2012).

Based on literature review, it might be concluded that although there are studies that are connected with digital teachers' perceptions towards technology and teaching with technology, there is a gap concerning a pre-service language teacher's identity status as well as their time-oriented attitudes on programmes such as *The Digital Teacher of English* one.

3. Research

3.1. Research questions

The purpose of the research was to find the answers to the following questions:

1. What identity statuses are represented by the surveyed students in relation to Marcia's classification?
2. What are the students' attitudes towards the past (motivations and influences), the present (identity development and career image) and professional future (future career ambitions)?

3.2. Participants and the research context

The participants were 30 students of MA programme *the Digital Teacher of English* at a university in Poland, both full-time and extramural. Their mean age was 24.5. There are 19 (63.3%) second year MA students and 11 (36.7%) first year MA students. Almost half of them had already been employed as teachers (46.2%), had given private lessons (25.6%), or had worked but not as a teacher (17.9%), and the remaining were full time students (10.3%). Concerning pre-service teachers' workplace, they were commonly employed in language schools and their learners are adults of different proficiency levels. Those who give private lessons, their students are of different age groups and proficiency levels.

The study is largely situated within the context of *the Digital Teacher of English* specialization and it focuses on teacher training innovation. Therefore, it should be more extensively explained as to how this study programme functions i.e. how the digital practicum is organized, how the subjects are delivered and what instructional methods are used as well as what the forms of assessment are. The digital practicum is organized into two years and four terms and the courses provided over the programme are listed in Table 1.

Table 1. The syllabus of MA study programme *the Digital Teacher of English*.

Year I	Year 2
MA seminar	MA seminar
Theories of second language acquisition, learning and teaching	MALL: mobile assisted language learning
CALL methodology (lecture)	Instructional design and evaluation
Tools of a modern teacher	IT in didactic research
CALL: language skills online	Practicum
Individual differences in language learning, on- and offline	Master's defence
Online project work	
Intercultural communication, on- and offline	
Research methodology	
Practicum	

The instruction is delivered through traditional/online lectures (flipped classroom model), e-learning, discussion class, workshops and a number of online activities such as telecollaboration, blogging, (virtual) active monitoring, as well as design of gamified language content. The instructional methods are, inter alia, cloud computing and the tutorial, task-based, expository, demonstrating, problem-solving, activating, project, and supporting autonomous learning methods. What is more, subjects such as Mobile Education and Instructional design and evaluation can be facilitated by a large, partnering corporate company, which offers internship to some of the students afterwards. The forms in which the covered material is assessed are e-learning, individual/group project, participation in discussion, tasks, written/oral exam, paper presentation/presentation, exercises at school, and field classes.

3.3. Design and procedure

Two concepts that emerge from the study conducted by Werbińska (2009) that have proved to be the most indicative of one's identity are one's views on studying a foreign language and one's views on teaching a foreign language. Because of that, the survey that would revolve around those concepts was created.

Both quantitative and qualitative data were collected by means of an online questionnaire adapted for the purpose of this research from the identity development interview (Lerseth, 2013) and a survey of students' career aspirations, motivations and expectations (Wilson et al., 2006). The survey comprised four parts: demographic data, the past (motivations and influences), the present (identity development and career image) and the future (future career ambitions). Besides the demographic data part, every other part of the study included both close-ended and open-ended questions.

The data were collected in March and April 2018. The link to the questionnaire was shared on Facebook (author's profile, students' Facebook group, individual students, the Facebook profile of a student society). Two other lecturers also shared the link to the online questionnaire via email. Students volunteered and filled the questionnaire anonymously.

The first research question required the kind of analysis that was performed by Werbińska (2009) i.e. the careful assigning each subject's answers into one of four categories of identities while paying attention to the use of specific expressions that would confirm a given type of identity. The sample expressions that supported the decision to classify a given participant's identity are provided in the next section. The quantitative data were analysed with the statistical programmes i.e. Microsoft Excel and SPSS.

3.4. Descriptive analysis of results

3.4.1. What identity statuses are represented by the surveyed students in relation to Marcia's classification?

As each questionnaire was analysed separately with the focus on open-ended questions, the personal identity of the majority of respondents is claimed to be achieved (64%). The results are summarized in Figure 1.

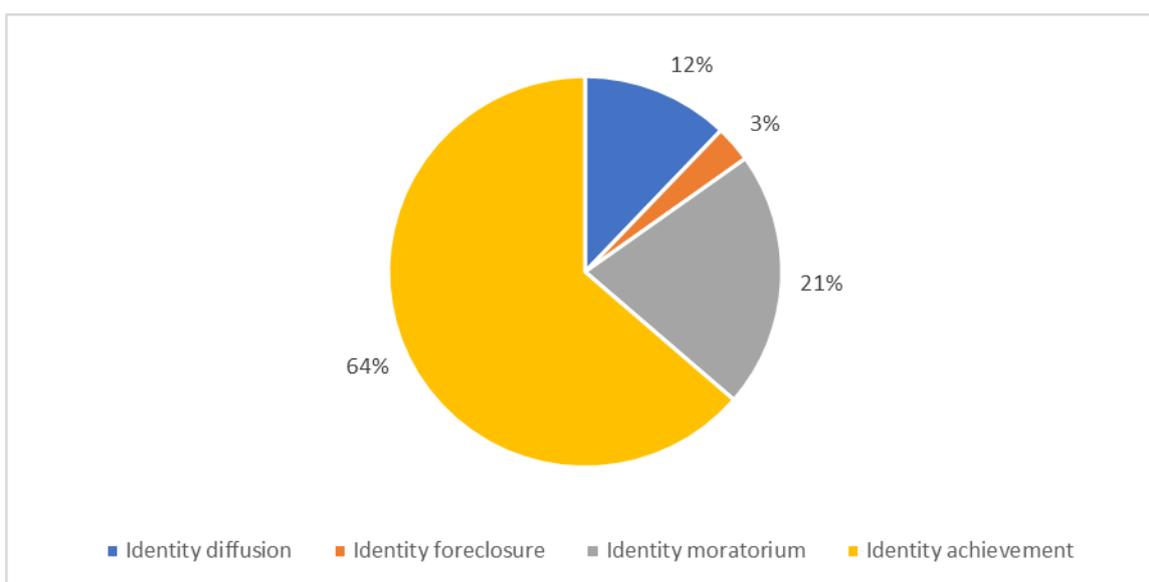


Figure 1. The respondents' identity statuses

The questions from the survey that turned out to be the most informative in terms of categorising the participants' identity statuses are listed below:

- Why did you decide on *the Digital Teacher of English* specialization?
- During your studies, did you change your perception of who *the Digital Teacher of English* is? If so, can you write what has changed in it?
- Can you cite examples where what you did as *the Digital Teacher of English* reflected who you are?
- There are turning points (positive and negative experiences) in the course of studying and teaching practice. Can you refer to them?
- Would you already call yourself *the Digital Teacher of English*?
- Is there anything else you would like to share about your *Digital Teacher of English* identity and/or your attitude towards the past, present or future?

Below, there are some translated sample expressions from the questionnaire that functioned as indicators during the process of analysing each participant's answers throughout the whole survey.

Identity Achievement

- "Once a teacher, always a teacher."
- "Because I like teaching languages, it's my passion."
- "Opportunity to reach every student, adapt learning needs, promote continuous development, teach how to learn, develop internal motivation, we have the opportunity to share our passion."
- "My future is only connected with this profession."
- "Because I want to teach, I have always wanted this since I was a child."
- "I wanted to learn English better. Joy of teaching, the realisation that I help other people in learning."

On the other hand, one student did not identify himself/herself as *the Digital Teacher of English*: "I do not currently work as an English teacher. Practices in elementary, middle and high schools effectively discouraged me from doing this job. I did not feel bad about it and I think I would be a good teacher, but I just noticed that this is not a good job for me. "

Identity Moratorium

- "I still do not know where I will work, there are so many possibilities that it is too difficult to decide."
- "I practically work in a corporation, theoretically I am a digital teacher, which I consider myself to be, but I do not know how my career will go on in the future."

Identity Diffusion

- "I was here because of life mistakes. I needed a master's degree. It's because of my laziness and stupidity."
- "Because after these studies it is easy to get a job and besides, it counted as part of the internship (being employed as a teacher, you did not have to spend time on apprenticeships)."

Identity Foreclosure

- "My parents encouraged me that after such studies I would find work everywhere, in fact they were right, but do I see myself as a teacher right now? I do not think so. Maybe after graduation, if I work a bit in the profession, I will be more convinced, but so far I like it."

It was observed that some students revealed that their teachers of English inspired them to apply for English studies in the first place, but just before graduation, they fully realise they are passionate about teaching. Moreover, students do not express fear of challenges and understand the need for professional development in the future. However, despite identifying

themselves as *Digital Teachers of English*, some of them do not exclude the option of working in international companies mostly because of financial reasons.

Last but not least, the pre-service teachers were asked to whether they feel they are *Digital Teachers of English* or not. The results show 63% of the respondents identify themselves as *Digital Teachers of English*, whereas 36.7% do not identify themselves because e.g. they think there is still a lot of work ahead of them, 3.3% that in theory yes, but in practice no, which concurs well with the analysis of the open-ended questions.

3.4.2. What is the students' attitude towards the past (motivations and influences)?

In order to understand the participants' reasons for studying English, teaching speciality, and *the Digital Teacher of English* specialization, they were first asked to answer two open-ended questions, which explored this area. The responses to the question "Why did you decide to study English, teaching specialty? Why did you decide on *the Digital Teacher of English* specialization?" demonstrate that the participants chose English because of their passion for learning this foreign language, which is a tool of international communication. Teaching specialty allows the participants to achieve their teaching ambitions, and *the Digital Teacher of English* is a new and prospective specialization attracting attention as the participants are keenly interested in new technologies, discovering new methods of teaching, learning apps, learning new things, and they find new technologies enjoyable for both children and adolescents. Such conditions of studying offer good career prospects. Likewise, the responses to the second question "Why did you decide to pursue the career of an English teacher?" highlight special aptitude for learning English/foreign languages, their passion for English and teaching in general, their satisfaction from teaching, good job prospects, or the possibility to realise one's true vocation.

The further results come from closed-ended questions that are connected with the suggested reasons for studying English, going for English Studies, choosing English as a potential career, and taking up the *Digital Teacher of English* MA study programme.

Figure 2 reports that the reason related to education, for which people decide to study foreign languages (scale 1-5, where 1 – not important, 2 – slightly important, 3 – no opinion, 4 – important, and 5 – very important) is definitely passion for languages (M=4.7), as it seems to confirm the data from the previously discussed open-ended questions. They rather have no opinion concerning subject teachers, not necessarily English (M=2.6). Leaflets/university website (M=2.23), opportunity to study abroad (M=2.2), participation in an open university day or career/conference days (M=1.5) are slightly important.

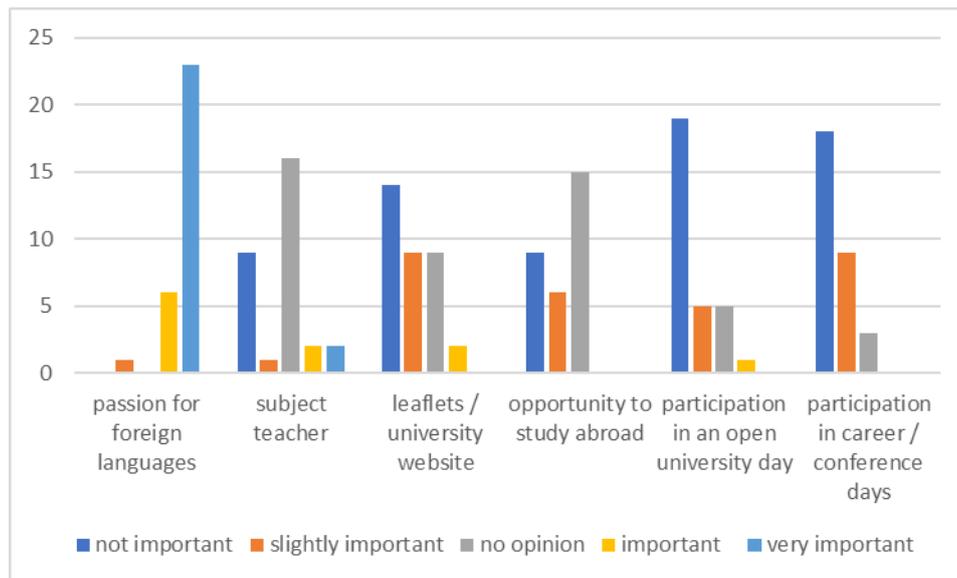


Figure 2. Reasons for studying foreign languages

As Figure 3 shows, the participants rated the influence of the personal authorities and concepts on their decision to study English (scale 1-5, where 1 – not important, 2 – slightly important, 3 – no opinion, 4- important, and 5 - very important). Similarly, the fact they are passionate about the English language ($M=4.7$), the fact that English is in their opinion a lingua franca ($M=4.3$) and the culture of English speaking countries ($M=4.2$) appear to have encouraged them to study this language the most. When it comes to an English teacher as an influencer, the answers are rather inconclusive ($M=2.7$). Finally, the participants do not consider parents ($M=1.8$), family ($M=1.8$), experience in volunteering and tutoring ($M=1.7$) or friends ($M=1.1$) as a dominant factor.

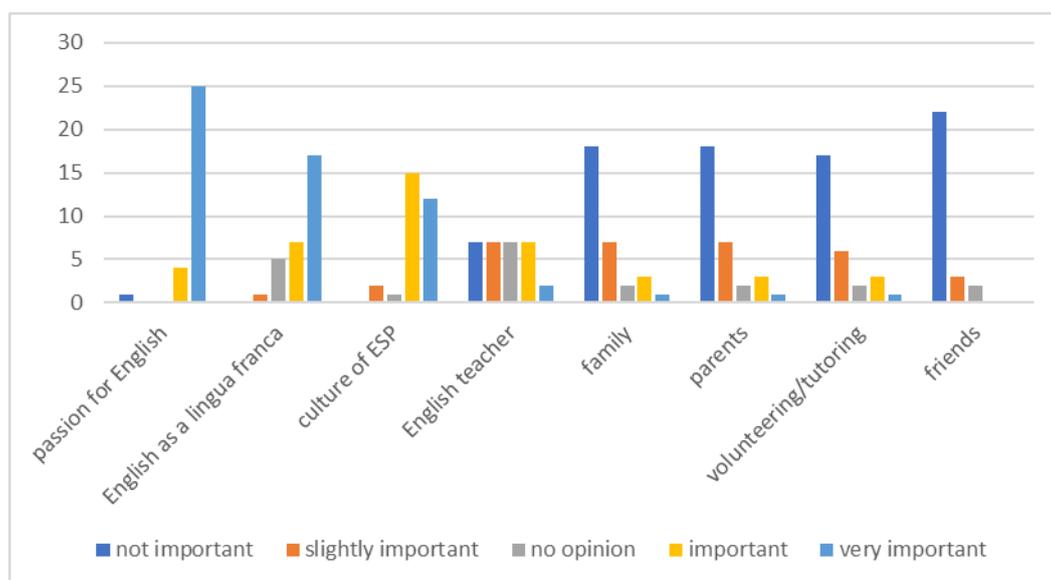


Figure 3. The influence of the personal authorities/concepts on the decision to study English

As the participants expressed their opinions on choosing foreign language studies with the focus on English (Table 2), they were asked to measure how strong the statements concerning one's reasoning when choosing English as a career were (scale 1-5, where 1 – strongly disagree, 2 – disagree, 3 – no opinion, 4- agree, and 5 – strongly agree). They strongly agree they liked English and were good at it at school (M=4.7), agree that felt passion for teaching (M=4.3) and so applied for a field of study connected with English (M=4.3), with the prospect of a profession (M=4.2) offering many job opportunities (M=4.23), in which one's works with people (M=4.2). Moreover, studying English was thought to be intellectually stimulating for the participants (M=4.1). They also agree that teaching was their destiny (M=3.8), they wanted to get a diploma (M=3.7) and a socially valuable job (M=3.5). They rather have no opinion on working in a profession respected in society (M=3.3), being interested in financial benefits (M=3.2), having a possibility for a job with flexible hours (M=2.7) or a part-time job (M=2.6). Possibly, the students did not have any opinion due to the lack of personal experience or point of reference then. They do not agree that wanted to open a business (M=2.1) or have the possibility for self-employment (M=2).

Table 2. The statements concerning one's reasoning when choosing English as a career

Strongly agree	Agree	No opinion	Disagree	Strongly Disagree
I liked English and was good at it at school.				
83%	7%	7%	0%	3%
I wanted to study a field of study connected with English.				
47%	47%	0%	3%	3%
I wanted to work in a profession respected in society.				
13%	34%	30%	13%	10%
I would like to have a job with good career prospects.				
23%	50%	10%	7%	10%
I thought that studying English is intellectually stimulating.				
47%	33%	13%	0%	7%
I wanted to have a socially valuable job.				
13%	47%	27%	3%	10%
I wanted to get a diploma.				
27%	43%	10%	17%	3%
I wanted to work with people.				
44%	33%	23%	0%	0%
I felt a passion for teaching.				
47%	43%	7%	0%	0%
I felt that teaching is my destiny.				
46%	18%	29%	7%	0%
I wanted to open my own business.				
3%	7%	27%	23%	40%
I wanted to have a possibility for self-employment.				
0%	27%	20%	27%	26%
I wanted to have a possibility for a part-time job.				
7%	40%	0%	13%	40%

I was interested in financial benefits.				
20%	27%	27%	6%	20%
I wanted to work flexible working hours.				
20%	20%	13%	20%	27%
I wanted to have a profession in which I would always find a job.				
35%	21%	35%	0%	9%

The participants decided how the suggested aspects influenced their choice of *the Digital Teacher of English MA* study programme (Figure 4), with the scale 1-5, where 1 – not important, 2 – slightly important, 3 – no opinion, 4 – important, and 5 – very important. There is not one leading factor or group of factors influencing the participants' choice: the teachers' reputation (M=3.3), recommendation (M=3.27), study programme (M=2.7) and syllabus (M=2.5). The experience of writing a BA thesis on the topic of digital learning is slightly important for the majority of the participants (M=2.1).

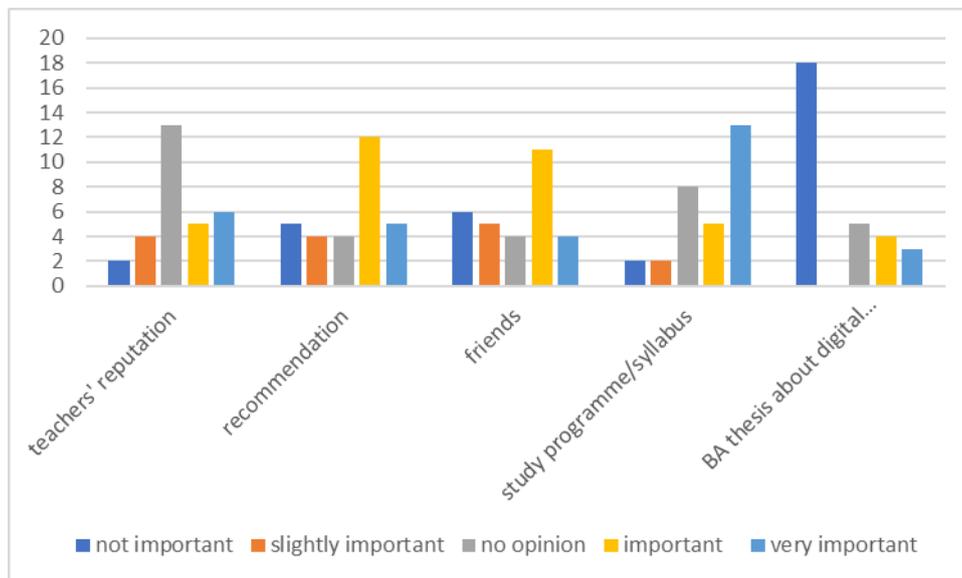


Figure 4. The factors influencing the participants' choice of MA study programme

The final results show how strong the participants' willingness to study English and become a teacher had been before they started their university. It might be assumed that both results are rather consistent as the pre-service teachers consciously applied for English studies (60% of the participants expressed their willingness to study English as very strong) with the idea of becoming a teacher in mind (43% of the respondents reached the conclusion that their willingness to become a teacher was very strong).

The closing section of this part of the research comprised open-ended questions, which investigated the examples of the respondents' favourite teachers and their distinguishable personality traits as well as those with whom the cooperation was rather difficult.

The types of positive qualities turned out to be connected with:

- one's profession: knowledge of the subject, methods of teaching adapted to the group's needs, organisation of work, good classroom atmosphere;
- work approach: being demanding and professional with a business-like attitude,
- teacher's attitude and personality traits: charisma, being approachable, charitable, friendly, helpful, humorous, just, personally committed, positive, and having passion for teaching.

The types of negative qualities proved to be connected with:

- one's profession: lack of knowledge and inability to teach, lack of organisation and preparation for the classes, lack of commitment;
- work approach, hostility, creating a stressful classroom atmosphere;
- teacher's attitude and personality traits: egocentrism, hypocrisy, inconsistency, moodiness, narcissism, and being demanding.

3.4.3. What is the students' attitude towards the present (identity development and career image of *the Digital Teacher of English*)?

First of all, second year participants felt motivated, satisfied and relieved they are about to graduate, that they are going to have a diploma and will be able to teach. 70% of students would apply for this specialization again, however, as many as 33% of the respondents thought of quitting studies due to personal issues, wrongly chosen studies or academic problems. Their attitude towards being *the Digital Teacher of English* did not change, it changed only for 22% of the participants who found the image was too idealized or that it would mean a teacher who uses digital tools only.

The participants were asked to provide examples of moments when what they were doing reflected their identity of *the Digital Teacher of English*. These were mostly moments of creative usage of digital tools or the idea of being always online for the student to help. They enumerated their positive and negative experiences during studies and school practice. What is very important here is that one of their positive experiences mentioned is the moment they realised they actually are *Digital Teachers of English*.

In Table 3 the results of the statements expressing their present attitude towards being *the Digital Teacher of English* are summarized. The findings show that the majority of the participants strongly agree that they derive satisfaction from teaching, are proud to be students of English, teaching speciality, *the Digital Teacher of English* specialization. They strongly

disagree on regretting studying at a pedagogical university in general. They do not plan further education such as postgraduate studies or PhD.

Table 3. The present attitude of the respondents towards being *the Digital Teacher of English*

Strongly agree	Agree	No opinion	Disagree	Strongly Disagree
I derive satisfaction from teaching				
50%	36.7%	6.7%	3.3%	3.3%
Being <i>the Digital Teacher of English</i> is the important part of who I want to be.				
26.7%	40%	26.7%	3.3%	3.3%
I am proud that I study English.				
40%	40%	13.3%	3.3%	3.3%
I am proud that I am on teaching specialty.				
50%	36.7%	6.7%	3.3%	3.3%
I am proud that I am on <i>the Digital Teacher of English</i> specialization.				
50%	30%	16.7%	0%	3.3%
I am proud that I study at this particular university.				
26.7%	36.7%	20%	6.7%	10%
I regret studying at a pedagogical university.				
3.3%	6.7%	10%	33.3%	46.7%
I am planning to go on postgraduate studies or PhD.				
3.3%	3.3%	16.7%	23.3%	53.3%

Table 4 details the final results from this part of the questionnaire with the suggested values and ideals of being the digital teacher (E-Nauczyciel, <http://ecdl.pl/certyfikaty/ecdl-profile-7/>) and the extent to which the participants are faithful to them. What should be noted from these results is that the participants agree to what constitutes the digital teacher, especially in terms of passion, but they are not sure about being a digital citizen in the global world. Additionally, the open-ended question shows that with new technologies the participants also perceive the opportunity to reach every student, adapt educational needs, promote continuous development, develop internal motivation, share their passion, learn through play. Digital teaching means for them flexibility, the ability to take risks, and unlimited access to information.

Table 4. The values and ideals of being the digital teacher

Suggested values	Very much	Somewhat	Undecided	Not really	Not at all
Aiming for the autonomy of students	66.7%	26.7%	6.7%	0%	0%
Readiness to take on new challenges	66.7%	26.7%	6.7%	0%	0%
Being a mentor / trainer for students ("facilitator")	66.7%	26.7%	6.7%	0%	0%
Engaging in professional development	70%	20%	10%	0%	0%
Being a digital citizen	33.3%	33.3%	33.3%	0%	0%
Involvement	73.3%	23.3%	3.3%	0%	0%
Passion	93.3%	6.7%	0%	0%	0%

Multitasking	56.7%	33.3%	10%	0%	0%
Open mind	63.3%	26.7%	10%	0%	0%
Innovation	53.3%	40%	6.7%	0%	0%
Cooperation	46.7%	46.7%	6.7%	0%	0%
Being global	30%	23.3%	20%	16.7%	10%
Balance between tradition and technology	46.7%	46.7%	6.7%	0%	0%

3.4.4. What is the attitude of students towards professional future (future career ambitions)?

Further results from the multiple choice question show where pre-service *Digital Teachers of English* want to apply. From Figure 6 one it can be noted that high school (56.7%), language school (60%), and international company (50%) are the most popular choices for their future workplace. If they choose to become a teacher, the school type seems to be no difference for them, whereas 20% of the participants opt for being self-employed.

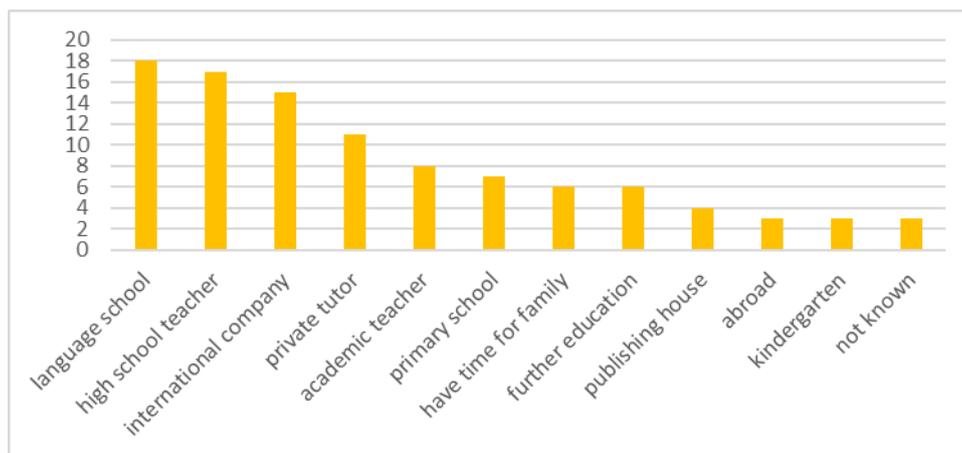


Figure 5. The future workplace

Then, the pre-service teachers were asked to decide to what extent the suggested factors prompt them to plan their future career in a given way. Figure 7 illustrates that the factor which influences participants' choice of future career path the most are teachers from the MA programme ($M=3.7$). School practice supervisors ($M=1.4$) and Erasmus experience ($M=1.3$) do not influence their planned future career. From this standpoint, it might be considered that the surveyed students are more certain which factors do not influence their choices rather than the opposite.

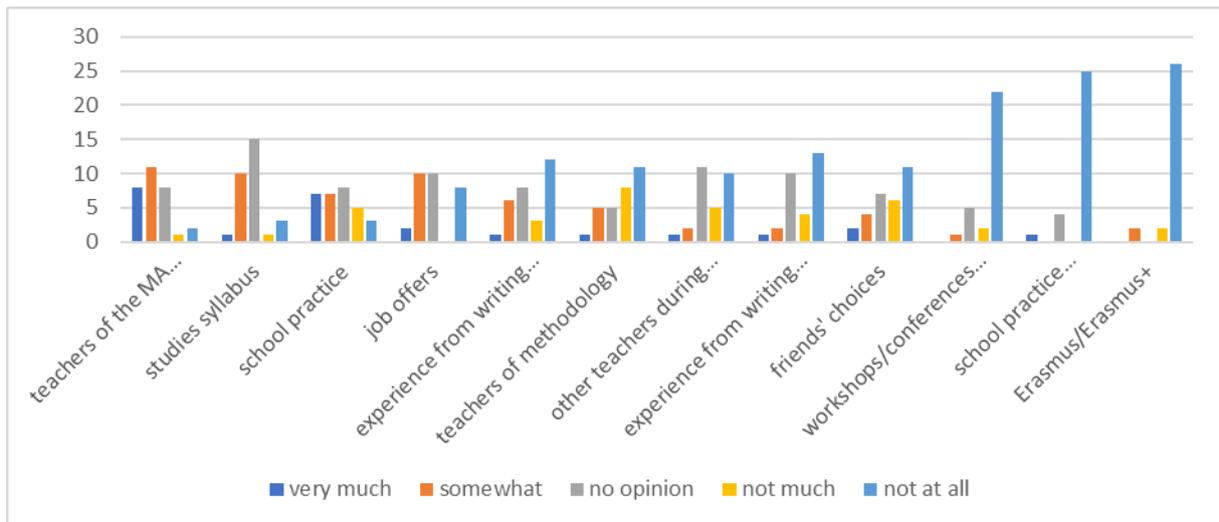


Figure 6. The factors influencing participants' choice of future career path

The final results in Table 5 explore what being a digital teacher means for the participants in the long term. According to them, there are good job opportunities due to the lack of digital teachers on the labour market, and there are opportunities for multiple interaction with the student. The participants do not seem to be sure whether they will become the part of the community of digital teachers. Such a career does not seem to represent working overtime or under time pressure, but offers variety. Career development and prospects of promotion are expected from such a stable job in the field where there is a shortage of qualified employees. They imply the opportunity to use the acquired knowledge of language and pedagogical knowledge, but still have either no opinion or agree that being digital teachers means being respected by the society in the long term, which is also reflected in the way the perceived deciding on English a career in the research question concerning their attitude towards the past.

Table 5. The attitude towards being the digital teacher in the long term

Strongly agree	Agree	No opinion	Disagree	Strongly Disagree
Good job opportunities due to the lack of digital teachers on the labour market.				
44.8%	37.9%	13.8%	0%	3.4%
Opportunities for multiple interaction with the student				
53.3%	30%	13.3%	0%	3.3%
The opportunity to become part of the community of digital teachers				
33.3%	26.7%	30%	6.7%	3.3%
Working under time pressure				
3.3%	3.3%	26.7%	30%	36.7%
Working overtime				
11.1%	5.6%	27.8%	38.9%	16.7%
Variety				
40%	46.7%	6.7%	3.3%	3.3%
Opportunities for professional development				
37.9%	41.4%	13.8%	3.4%	3.4%

Opportunities for career advancement				
16.7%	43.3%	16.7%	16.7%	6.7%
Having a stable job				
36.7%	36.7%	16.7%	6.7%	3.3%
Working in the field where there is a shortage of qualified employees				
36.7%	40%	13.3%	6.7%	3.3%
The opportunity to use the acquired knowledge of language and pedagogical knowledge				
60%	33.3%	3.3%	0%	3.3%
Being respected in society				
10%	40%	40%	6.7%	3.3%

4. Discussion

The results of the present study go in line with Werbińska's (2009) and Yunus, Malik & Zakaria's (2012) findings i.e. more than half of the participants identify themselves as *Digital Teachers of English*. The students consciously, and almost without any external influence, continue their education and experience in the field of teaching English as a foreign language with the usage of new technologies. The participants had had the intention to study English and become teachers before they actually started. Joining this MA programme is related to many reasons, inter alia, teachers' reputation, recommendations, friends and content. The teachers should pay attention to all the information they share with their potential students as it appears to be substantial, especially when the programme is relatively new and its methodologically-oriented content should be demonstrated as there is need for such content observed (Krajka, 2012).

Nevertheless, when deciding on their future professional career, the lecturers play a fairly significant role. They are aware of what constitutes a "good" or "bad" teacher as they can critically reflect upon their life experiences. Events such as workshops, conferences, career days have little influence on their choices. It would seem worth exploring to check whether these students participate in such events and how effective they are. When the students decide on their MA programme, they tend to continue their education at the same university they did their bachelor's degree. However, their experience in the process of writing the BA thesis is definitely not important. The MA programme that is the subject of this study is considered satisfactory by the participants and most of the participants would choose it again. However, it is observed that some of the participants believe that the image of *the Digital Teacher of English* is too idealized or that it means a teacher who uses digital tools only. This finding is in line with Krajka's (2012) observation that some teachers might perceive teaching with technologies after being trained to incorporate them as not so innovative as they thought it would be, that the "wow factor" would lose effect, or that they have an inadequate perception

of digital teaching. They do not plan further education after graduation. The studied group exhibit their willingness to work with people, but are not sure what being a digital citizen means for them and how it corresponds with the identity of the digital teacher.

It has been demonstrated that besides educational opportunities, pre-service teachers take into consideration other places of work like international companies. The role of the teacher should be here to prompt his/her students to do what they are truly passionate about to reach self-satisfaction. Passion for learning and teaching English have been exhibited by the participants on different occasions. They would like to share their passion of the use of technology with other students, which is considered a real asset. This finding is in line with the studies from the literature review as they similarly show the positive perception towards Computer-Assisted Language Learning (Boersma & Getu, 2016; Harvil, 2018; Krajka, 2012; Muslem, Yusuf, & Juliana, 2018; Silviyanti & Yusuf, 2015).

As the lecturers from the MA programme are supposed to guide the orientation of the students' decisions, they should encourage and introduce them to join the community of digital teachers. The pre-service teachers might not be aware of the existence of such a community, but as it has been enumerated in the literature review, there are many digital teaching programmes whose graduates form a large group of digital educators. The results confirmed in two instances that the participants are not convinced that their future job would be respected in society. Again, their lectures might reassure them that over time they will earn and experience respect from their students, parents, and the fellow teachers.

The investigation has shown that despite the studied group's positive perceptions towards Computer-Assisted Language Teaching, the values and ideals of the digital teacher should be stated and reflected upon more definitely during the participants' studies. It has also appeared that the opinion on status of the digital teacher and the status of the teacher are interconnected. A general understanding of what encompasses the identity of the digital teacher for the group studied is observed and the attitude towards the character of this profession, inter alia opportunities and variety it provides, is positive. However, the concepts e.g. 'being a digital citizen' and 'being global' might not be understood and/or identified as the qualities that the digital teacher exhibits. Furthermore, in the participants' view society does not have a high opinion of the digital teacher. This might be attributed to the general opinion about the status of the teaching profession as it being not ranked notably highly (Dolton et al., 2018). Such a perception is common not only among the Polish participants of this study but the teachers in most of European countries (European Union, 2013) or the United States (PDK International, 2019).

5. Conclusions

To sum up, the study explored the identity and attitudes of a group of students that attend *the Digital Teacher of English* specialization. Their identity statuses, according to James Marcia's classification, are mostly achieved, which means that after a period of self-exploration, they ultimately achieved their identity as Digital Teachers of English. They are motivated towards applying for a specialization that actively educates in the area of computer-assisted language learning. The majority of the participants would choose the same specialization again.

The participants identify the aspects of their teaching practice that lead to their positive perception of Computer-Assisted Language Learning such as the variety of possibilities that technology offers and the learner-centred communication that they experience. In the future, they expect to find many job offers where they can interact with students on many levels.

The findings might be extrapolated to form the basis for planning a study programme of a similar kind, attracting students to attend such programme, lecturers' role, and finally, encourage graduates to develop their careers in the direction of digital learning. Future educators willing to open a studying programme of a similar kind should put particular emphasis on teachers' reputation, recommendations and its syllabus. The lecturers, who were found to be the most influential in terms of having an impact of the participants' future career path, should act as role models that throughout the programme continue to encourage them to invest their time in career development in digital teaching further after they graduate. Timing seems to be vital as further education, at least in the formal setting. These role models should address the aspects of the digital teacher profession's identity and make them aware of the teacher's image created by society in general (European Union, 2013). Current international events such as workshops, conferences, or career days as well as the experience of studying abroad on an exchange programme do not influence *Digital Teachers of English'* decision to develop in this area after graduation. Perhaps further research might answer the question if and how such events might build e.g. communities of digital teachers from the start of their professional career. Last but not least, there should more platforms available and those already existing should be popularized more widely for those who wish to identify or identify as digital teachers to connect, share experiences, and support one another as participation in professional educational groups facilitates their professional development (Hung & Li, 2017).

Due to practical constraints, the major limitations of the study are the small sample and possibly the lack of control group. Therefore, given the small sample size, caution must be exercised. Future research might be performed on another group taking an MA programme of regular English language teaching as comparing those two groups might give some answer to

the extent to which the focused treatment of the *Digital Teacher of English* specialization actually results in identity changes. Alternatively, another study might explore the same students when starting the specialization and graduating from it or two groups of students (one from the specialization and one outside it, e.g., from the regular English studies ELT department). Despite the limitations of this research, its exploratory nature sheds light on better understanding of pre-service teachers' identity and their attitudes before and during their studies on the *Digital Teacher of English* specialization while sharing their perceptions for their future as well.

Acknowledgement

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Notes

[1]

<https://education.ontariotechu.ca/undergraduate/bachelor-of-arts-estd-adult-education-and-digital-technology.php>

<https://study.csu.edu.au/courses/teaching-education/master-education-knowledge-networks-digital-innovation>

<https://www.ed.ac.uk/studying/postgraduate/degrees/index.php?r=site/view&id=106>

<https://global.k-state.edu/education/curriculum-and-instruction/digital-teaching-and-learning>

<https://study.unisa.edu.au/degrees/graduate-diploma-in-education-studies-digital-learning>

<http://www.monash.edu/pubs/2018handbooks/aos/digital-learning>

<https://www.ucsyd.dk/digital-teacher>

<http://www.tellconsult.eu/>

<https://www.futurelearn.com/programs/digital-learning-design-and-assessment>

<https://fabrykaprzyszlosci.pl/szkolenia-i-oferty/szkolenia-tik-w-dydaktyce>

<http://www.szkoly.katowice.zdz.pl/cyfrowy-nauczyciel-multimedia-w-nauczaniu> (access: 24.02.2020)

[2]

[https://www.nottingham.ac.uk/pgstudy/course/taught/digital-technologies-for-language-teaching-\(distance-learning\)-ma](https://www.nottingham.ac.uk/pgstudy/course/taught/digital-technologies-for-language-teaching-(distance-learning)-ma)

<https://www.uni-giessen.de/study/courses/master/langtech>

<http://www.tellconsult.eu/> (access: 24.02.2020)

[3] The original in Polish: „Fenomen bycia jednostką niepowtarzalną zawdzięczamy temu, że w toku życia kumulujemy obrazy siebie. Tożsamość to ciągle przypominanie, ulepszanie, konstruowanie siebie na podstawie tego co było, jest i będzie w naszym życiu”.

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SKYPE[®] INTERNATIONAL EFL EXCHANGES REVISITED: CHI-SQUARED RESULTS OF CHANGES IN AFFECTIVE VARIABLES

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Abstract

This article contains the results of a chi-squared analysis on the data set of a survey instrument completed by a class of Japanese elementary school students ($n = 29$) before and after a series of Skype[®] exchanges. The parametric results were reported previously (Ockert, 2015a). The instrument instructions requested students to rank six statements on a scale from 1 (*Completely Disagree*) to 6 (*Completely Agree*). Comparing the chi-squared individual item results before and after the exchanges clearly shows the increases in the affective variables across the range of the scale numerical options. The implications for the use of voice over Internet protocol technologies in EFL contexts are discussed.

Keywords: Affective variables; chi-square analysis; EFL; Japan; motivation; Skype[®]

1. Introduction

This article is a follow-up to a previously published article in this journal (Ockert, 2015a), which provided the parametric results. Readers interested in specific details regarding the content of the Skype[®] exchanges, etc., are encouraged to read the previous articles (Ockert, 2015a, 2015b). However, this article is written as a reply to a professional critique by Ferreira (2017). The author chose to delve deeper into the data set utilizing a chi-square (χ^2) analysis, a non-parametric analytical method appropriate for small-sample sizes. It can be reasonably assumed that the χ^2 analysis may show increases in the pre- and post-intervention survey option choices. In other words, the χ^2 results will show increases when comparing the pre-intervention with the post-intervention survey results on a per item basis – results that a simple mean / standard deviation increase does not reveal.

The use of the Skype video-conferencing technology in educational contexts in general (e.g. Sivakumar, 2015) and foreign language (FL) learning contexts continues to increase for several reasons. For example, research “findings provide evidence that Skype[®] is beneficial and effective for the teaching and learning of English” (p. 20), according to Raman and Krishnasamy (2015). Also, and in support of the abovementioned practical applications,

research has revealed statistically significant positive increases in changes on a self-report measure before and after EFL Skype® language exchanges (Ockert, 2015a, 2015b, 2017a, 2017b).

The use of a χ^2 analysis goodness-of-fit will show the extent to which the numerical choices of the participants in the survey vary from the mode before and after the Skype® exchanges. Furthermore, and of particular value for this study, we will be able to see how the numerical choices changed after the exchanges in comparison with the results reported before the exchanges. These results are of immediate relevance for teachers since they can see clearly how the students' affect was positively influenced as a result of the exchanges. The results presented in this article are of particular significance in light of the fact that other studies in the Japanese EFL (JEFL) context have shown that Skype® is increasing in popularity. As a result, researchers in the JEFL schools are working to develop scales to measure the impact of Skype® use on skills gained from research studies – such as the one reported on in this article (e.g. see Tabira & Goto, 2017).

For review of the positive results reported in the earlier article, please see Table 1, which has the parametric results (Ockert, 2015a). As can be seen, the results are mostly positive, with only a single non-statistically significant reduction in Communicative Confidence. For the purpose of review, the results of the differences for the groups' mean (*M*) and standard deviation (*SD*) before and after the intervention are presented in Table 1 (Ockert, 2017a, 2017b) for reference. Also, the six items on the survey instrument are intended to measure interest in foreign language activities, international posture, motivation, communicative confidence, willingness to communicate (WTC), and the desire to travel abroad (Please see the Appendix).

Table 1. The experimental groups' *M* and *SD* before and after the intervention

	Foreign Lang. Activities	International Posture	Motivation	Comm. Confidence	Willingness to Comm.	Desire to Travel
Before	3.14 (1.70)	3.31 (1.84)	3.17 (1.70)	3.45 (1.40)	3.34 (1.86)	4.45 (1.77)
After	4.10 (1.16)	4.48 (1.10)	4.10 (1.16)	3.41 (1.38)	3.90 (1.24)	5.07 (1.14)
Difference	0.96**	1.17**	0.93**	-0.04	0.56	0.62*
Effect Size	0.83	1.06	0.80	<i>Na</i>	<i>Na</i>	0.54
Power	.77	.95	.74	<i>Na</i>	<i>Na</i>	.65

Note. ** $p < .01$; * $p < .05$

These results clearly show positive and meaningful increases in four of the six variables investigated. However, the results in this article are from a χ^2 test that examines the goodness-of-fit of the data from the instrument results before and after the Skype® interventions. For the

χ^2 , the lower score indicates similarity of response between the items. For the χ^2 , a lower number indicates the responses are, in general, closer to the mode, which is the anticipated number of responses to each of the six numerical choices. Therefore, the results presented herein confirm that the Skype[®] student affect increases are not only positive, but meaningfully different than the control group, as shown in the previous study (Ockert, 2015a).

2. The affective variables under investigation

As mentioned above, six affective variables related to EFL learning are examined in this study. They are foreign language activities (FLAs), motivation, international posture (IP), willingness to communicate (WTC), communicate confidence (CC) and desire to travel overseas. These six variables were chosen as part of a study for a larger research project, and are not considered to be the only variables impacting EFL learners' language learning outcomes. Our previous research has shown that the Skype exchanges not only showed statistically significant increases (Ockert, 2015a, 2015b) but also had meaningful large effect sizes and statistical power (Ockert, 2017a, 2017b). After a brief review of the six affective variables investigated for the study, the results are presented and discussed. The first variable, foreign language activities may not be an affective variable per se, it will be used in further analysis to detect what, if any, changes they may have on the five remaining affective variables. It is important to note that at least two of the variables, motivation and willingness to communicate, are proven predictors of L2 use in the JEFL context (Hashimoto, 2002).

2.1. Foreign language activities

Previously, Takiguchi (2002) demonstrated the efficacy of in-class videoconferencing interventions with elementary school students in the JEFL learning context. Furthermore, Hiromori's (2006) research has shown that interventions, which stimulate autonomy, competence and need for relatedness, improve student SDT motives in educational context. Also, foreign language activities (FLAs) used in the JEFL context to influence affective variables have included video letter exchanges (Tagami, 2011a; 2011b) and Skype (Ockert, 2015a, 2015b). Therefore, the empirical results of VoIP language exchange interventions as reported in the literature show that affective variables have been positively influenced in previous tech-based interventions in the JEFL context. The research presented in this article confirms this fact.

In the previous article (Ockert, 2015a), the results for FLAs increased from 3.14 (1.70) before the Skype[®] interventions, to 4.10 (1.16). This increase of 0.96 is statistically significant ($p < .01$). By examining the specific distribution of the answer choices in Table 4, we can see just where the increases occurred.

2.2. International posture

Reporting on research conducted within the JEFL context, Yashima (2000) found that English seems to represent something broader than people from the US or Britain in the minds of young Japanese learners. She refers to a generalized international posture (IP) as an interest in international affairs, willingness to travel abroad and to interact with intercultural partners, and an open-minded attitude toward different cultures. Therefore, this identity with ‘foreignness’ possesses an international outlook and the attendant attitudes to different cultures and foreigners that are non-Japanese (Yashima, Zenuk-Nishide, & Shimizu, 2004). This work has been the basis for examining the relationships among IP, L2 learning motivation, and communicative confidence in an L2.

The IP mean score increased from 3.31 (1.84) before, to 4.48 (1.10) after the Skype exchanges – an increase of 1.17 points on the six-point scale; this is the largest increase and statistically significant ($p < .01$; Ockert, 2015a). An examination of the individual numerical choices in Table 5 show clearly where the changes are in the six options.

2.3. EFL learner motivation

There have been increases in motivation as a result of computer-mediated communication (CMC) as reported by researchers in previous studies (e.g. Wu, Marek & Yen, 2012). Various reasons are provided; including the result of exposure to stimulating and authentic learning contexts, of collaborative work in a less-threatening environment (Friermouth & Jarrell, 2006), and of learners’ perceived feeling of having control over their own learning (Warschauer, 1996). This aspect of CMC motivation will be explored in more detail below and is the basis for the exchange activities used in this study. It is important to explore L2 motivation, as it is a proven predictor of L2 use in the JEFL context (Hashimoto, 2002). Also, a longitudinal study with elementary students demonstrated that student motives were positively influenced by engagement in EFL tasks / activities (Oga-Baldwin & Nakata, 2017; Oga-Baldwin et al., 2017). This is relevant to this research because the use of Skype[®] in the classroom is clearly a means to engage the students in an FLA with native speakers (NSs) of English.

The results for Motivation as reported in the earlier article showed a mean score increase of 0.93, from 3.17 (1.70) to 4.10 (1.18), which is statistically significant at $p < .01$ (Ockert, 2015a). The results in Table 6 below show exactly where the increases occurred.

2.4. L2 communicative-confidence

MacIntyre and his associates (Donovan & MacIntyre, 2004) identified a concept, which they have labeled 'perceived communicative competence'. In JEFL studies, Yashima (2002) found a positive, causal relationship between motivation (which was comprised of two indicator variables, desire and intensity) and communication confidence (comprised of two indicator variables – communication anxiety, aka nervousness, and perceived communication competence) in the L2, which led to WTC. In addition, Yashima et al. (2004) found that self-confidence in communication in an L2 to be essential to be willing to communicate in that L2. Whatever the context, it is important that earlier studies on public speaking showed that the speaker's perceived competence plays an important role in relation to any attendant anxiety (see MacIntyre & MacDonald, 1998).

The communicative-confidence mean score actually showed a decrease – from 3.45 (1.40) down to 3.41 (1.38) in the previous article (Ockert, 2015a). While this is a very slight drop (-0.04), it was the only affective variable to decline after the exchanges. Possible reasons for this decrease will be discussed below.

2.5. Willingness to communicate

In the JEFL literature, Yashima and her associates (Yashima et al., 2004; Yashima et al., 2009) have conducted research on WTC in the JEFL context in relation to several affective variables, including, language learning orientations and motivations (Yashima, 2000), student WTC (Yashima, 2002) and the influence of attitudes and affect on WTC and second language communication (Yashima et al., 2004); they concluded that self-confidence in communication in a second language is necessary for a learner to be willing to communicate in an L2 (Hashimoto, 2002). Finally, Reinders and Wattana (2011), in a small-scale exploratory study involving student engagement with language via video games ($N = 16$, $n = 8$) found that L2 students who communicated in English in order to play computer games improved their L2 WTC as analyzed via a self-report measure. The results reveal that the average number of turns per student in the third session ($M = 75.88$, $SD = 20.518$) was greater than the first session ($M = 66$, $SD = 18.174$). The results are statistically significant ($t = 3.837$, $p = .006$; $p < .05$) with a medium effect size ($d = 0.49$; p. 14).

In the results reported in the previous article (Ockert, 2015a), WTC showed a non-statistically significant increase of 0.56 after the exchanges; however, there were revealing positive changes, as can be seen in Table 8 below, which will be discussed below.

2.6. Desire to travel overseas

Clément and his associates (see Clément & Krudenier, 1985) reported on the desire to travel overseas and the desire to make friends with members of an L2 target community. Students' desire to spend time abroad is related to instrumental motives (e.g. future employment) and socio-cultural motives such as a desire to make friends (Clément, Dörnyei & Noels, 1994). In an earlier study on computer-mediated communication (CMC), Kramsch and Andersen (1999) wrote that computers and the Internet seem to realize the dream of every language teacher – to bring the language and culture as close and as authentically as possible to students in the classroom. Therefore, using Skype to 'bring the world into the classroom' may increase student interest – and desire to visit – different countries to experience that culture firsthand.

The results for Desire to Travel Overseas increased by 0.62, from 4.45 (1.77) to 5.07 (1.14), which is statistically significant ($p < .05$; Ockert, 2015a). These results – the pre- and post-intervention mean values – are the highest for any of the affective variables. Possible reasons will be discussed below, with reference to the data in Table 9.

3. Methods

3.1. Participants

Twenty-nine 5th grade elementary school students participated in the study ($N = 29$). The students were all either ten or eleven years of age, and evenly divided by gender. They were all native Japanese in the same school in Matsumoto city, Nagano prefecture, Japan.

3.2. Survey instrument

The research project used a self-report measure administered in Japanese. The instrument used a six-point Likert-type scale from 1 (*Completely Disagree*) to 6 (*Completely Agree*). There were six questions, one each on foreign language activities; foreign countries / different cultures; desire to communicate in English; confidence to communicate in English; desire to communicate with foreigners in English and traveling abroad. A principal components analysis (PCA) confirmed the internal validity of the instrument (for more information on the

instrument used, see Ockert, 2015b). Cronbach's *alpha* reliability estimate is .88. The survey was in paper form and in Japanese. Please see Appendix for the six items of the survey.

3.3. Project outline

The survey was administered in class to the students before the Skype® exchanges in April and again in December after the exchanges. During the intervening months, the students participated in three technology-based FLAs (Skype® exchanges) with students living abroad. The first trial exchange took place on July 21, at which time the students were able to introduce themselves. The second and third exchanges took place for approximately thirty minutes each on November 1st and 2nd respectively, and a final exchange took place on December 2nd for about 30 minutes.

The survey was administered in class to the students before the Skype® exchanges in April and again in December after the exchanges. The survey was in paper form and in Japanese. Participation was voluntary with the approval of the school administrators and student anonymity was assured.

3.4. Analytical method

As this is a small-scale study, using ordinal data, the common parametric analytical method using descriptive statistics such as mean (*M*) scores and standard deviations (*SD*) as used in the previous article has been criticized (see Ferreira, 2017). As suggested, a non-parametric χ^2 goodness-of-fit analysis is used in the present study. The advantages of this method are twofold: First, the changes in the χ^2 result itself inform us of the extent to which student responses deviate from the mode; and second, we can examine the specific number of responses to each item for each numerical choice, thereby allowing comparison for before / after the Skype® exchanges.

3.5. Research questions and hypotheses

Based upon the previously reported research results, the following research questions are asked:

1. Will there be increases in the χ^2 results for the post-intervention data?
2. Will the χ^2 output data show changes in the distribution of the student selections of the numerical options that will support the quantitative results in the previous article (Ockert, 2015a)?

Based on the two research questions, the following hypotheses are offered and examined:

1. The post-intervention χ^2 results will show increases, indicating less parsimony in the data in overall, with a concentration of results in the higher numerical choices.
2. The post-intervention χ^2 tables for the individual items will show results that illuminate the previously reported results in Ockert, 2015a.

The research questions were operationalized with a survey instrument that asked the students to rank the six statements on a Likert-type scale from 1 (*Completely Disagree*) to 6 (*Completely Agree*). Please see the Appendix.

4. Results and findings

The pre-Skype[®] exchange data for the experimental group were put to a χ^2 analysis, and the results are provided in Table 2, and the post-exchange data appear in Table 3. An interesting coincidence is the similarity in the results for FLAs and Motivation before and after the intervention in Tables 2 and 3, respectively. However, this should not be unexpected as the descriptive statistics (*M & SD*) are very similar (see Table 1). However, another study to check the content validity of the instrument using a principal components analysis (PCA) confirmed that the items are in fact measuring different constructs, as the individual items neither formed single components nor cross-loaded (Ockert, 2015b). It should also be noted that a review of the data showed that the same students did not select the same numerical choices for the two items.

Table 2. The experimental group χ^2 test results before the Skype[®] exchanges

	Foreign Lang. Activities	International Posture	Motivation	Comm. Confidence	Willingness to Comm.	Desire to Travel
χ^2	1.828 ^a	3.241 ^b	1.828 ^a	12.586 ^a	3.069 ^a	11.172 ^b
<i>df</i>	5	4 ^c	5	5	5	4 ^d
<i>p</i> level	<i>p</i> = .872	<i>p</i> = .518	<i>p</i> = .872	<i>p</i> = .028	<i>p</i> = .689	<i>p</i> = .025

a. The expected frequency of 6 cells (100.0%) is 5 or less. The minimum value of the required cell frequency is 4.8.

b. The expected frequency of 0 cells (0.0%) is 5 or less. The minimum value of the required cell frequency is 5.8.

c. The *df* is 4 since no participants responded to option 3 on the scale of 1 (completely disagree) to 6 (completely agree).

d. The *df* is 4 since no participants responded to option 2 on the scale of 1 (completely disagree) to 6 (completely agree).

The results presented in Table 3 help confirm that the Skype[®] student affect result increases are not only positive, but also statistically significant in comparison with the pre-intervention results shown in Table 2 (Ockert, 2017a). The χ^2 results in Table 3 also inform us that the respondents are replying to the individual survey items in a more distinct manner. For pre- and

post-intervention comparisons, the results for each of the 6 items are in Tables 4 through 9 below.

Table 3. The experimental group χ^2 test results after the Skype® exchanges

	Foreign Lang. Activities	International Posture	Motivation	Comm. Confidence	Willingness to Comm.	Desire to Travel
χ^2	17.552 ^a	10.483 ^b	17.552 ^a	11.345 ^a	10.931 ^a	19.793 ^b
<i>df</i>	5	4 ^c	5	5	5	4 ^c
<i>p</i> level	<i>p</i> = .004	<i>p</i> = .033	<i>p</i> = .004	<i>p</i> = .045	<i>p</i> = .053	<i>p</i> = .001

a. The expected frequency of 6 cells (100%) is 5 or less. The minimum value of the required cell frequency is 4.8.

b. The expected frequency of 0 cells (0%) is 5 or less. The minimum value of the required cell frequency is 5.8.

c. The *df* is 4 as no participants responded to option 1 on the scale of 1 (completely disagree) to 6 (completely agree).

Furthermore, the high χ^2 values in Table 3 inform us that at the very least the students as a group responded to each item in a more ‘specific’ manner to individual response choices after the interventions, and the low *p* values confirm this. Also, none of the participants chose option 1 for *Completely Disagree* for *IP* and *Desire to travel abroad* – a clear indication that their affect was positively influenced by the Skype® exchanges. However, the most important aspect of these results is that for many of the items, students specifically chose the higher range numerical options (4, 5, & 6) after the exchanges in comparison with the survey results before exchange. For example, as can be seen in Tables 4, 5, 6, 8, and 9, the before results show that the answer choices are rather evenly spread across all numerical options, from 1 (*Completely Disagree*) to 6 (*Completely Agree*). As the χ^2 values after the exchanges indicate, the students tended to ‘cluster’ their responses on the higher three numerical options.

However, since the χ^2 results by themselves only inform us that the results differ from the expected mode of an even distribution of results, we can look even further at the distribution of the results before and after the Skype® exchanges to see exactly how the students responded on the scale of 1 to 6. Therefore, any differences – both positive and negative – between the before and after results can be scrutinized for a better understanding of the clearly positive influence of the intervention.

4.1. Foreign language activities

As can be seen in Table 4, the distribution of answers around the mode is quite parsimonious before the exchanges (on the left side of the Table) compared with after the exchanges (right side of Table).

Table 4. The Foreign Language Activities results before and after Skype® exchanges

	<u>Foreign Language Activities Before</u>			<u>Foreign Language Activities After</u>			
	Observed frequency <i>N</i>	Expected frequency <i>N</i>	Residual Error	Observed frequency <i>N</i>	Expected frequency <i>N</i>	Residual Error	
1.00	7 (24%)	4.8	2.2	1.00	1 (3%)	4.8	-3.8
2.00	5 (17%)	4.8	.2	2.00	2 (7%)	4.8	-2.8
3.00	5 (17%)	4.8	.2	3.00	4 (14%)	4.8	-.8
4.00	4 (14%)	4.8	-.8	4.00	10 (34%)	4.8	5.2
5.00	5 (17%)	4.8	.2	5.00	10 (34%)	4.8	5.2
6.00	3 (10%)	4.8	-1.8	6.00	2 (7%)	4.8	-2.8
Total	29			Total	29		

Of particular interest, 7 students chose option ‘1’ before the Skype® interventions, but this number dropped to 1 student after the interventions. Also, another positive result is the doubling of the positive responses for the ‘4’ and ‘5’ choices.

4.2. International posture

A good example of the positive influence of the intervention(s) is the result of the International Posture data, which is presented in Table 5. These results are particularly impressive in light of the clear fact that 8 students chose option ‘1’ before the interventions, and no students chose this option afterwards.

Table 5. The International Posture results before and after Skype® exchanges

	<u>International Posture Before</u>			<u>International Posture After</u>			
	Observed frequency <i>N</i>	Expected frequency <i>N</i>	Residual Error	Observed frequency <i>N</i>	Expected frequency <i>N</i>	Residual Error	
1.00	8 (28%)	5.8	2.2	1.00	0 (0%)	0	0
2.00	5 (17%)	5.8	-.8	2.00	2 (7%)	5.8	-3.8
3.00	0 (0%)	0	0	3.00	2 (7%)	5.8	-3.8
4.00	5 (17%)	5.8	-.8	4.00	11 (38%)	5.8	5.2
5.00	8 (28%)	5.8	2.2	5.00	8 (28%)	5.8	2.2
6.00	3 (10%)	5.8	-2.8	6.00	6 (21%)	5.8	.2
Total	29			Total	29		

Also, the results for the ‘4’ and ‘6’ options either doubled or more. This clearly shows a nice increase of students selecting the top three options (4, 5, & 6) over the lower three numerical choices (1, 2, & 3), as fully 86% of all responses after the exchanges are for the top three options.

4.3. Motivation

Similarly, as Table 6 shows, seven students chose the ‘1’ option before, and only ‘1’ student did so after the interventions. The results for the ‘4’ and ‘5’ choices doubled. Again, this shows a gain on the three highest numerical choices overall.

Table 6. The motivation results before and after Skype® exchanges

Motivation Before				Motivation After			
	Observed frequency N	Expected frequency N	Residual Error		Observed frequency N	Expected frequency N	Residual Error
1.00	7 (24%)	4.8	2.2	1.00	1 (3%)	4.8	-3.8
2.00	5 (17%)	4.8	.2	2.00	2 (7%)	4.8	-2.8
3.00	4 (14%)	4.8	-.8	3.00	4 (14%)	4.8	-.8
4.00	5 (17%)	4.8	.2	4.00	10 (34%)	4.8	5.2
5.00	5 (17%)	4.8	.2	5.00	10 (34%)	4.8	5.2
6.00	3 (10%)	4.8	-1.8	6.00	2 (7%)	4.8	-2.8
Total	29			Total	29		

Options '4' and '5' doubled in frequency of selection after the exchanges compared with the results before the Skype® intervention(s).

4.4. Communicative confidence

In Table 7, the results for CC show very little difference in the before and after results. While the number of students who chose a '6' doubled, it was only from one student to two students. However, if we look at the number of students who opted for the lowest three choices, there were 16 respondents before the intervention and 13 after the exchanges, which is an improvement.

Table 7. The Communicative Confidence results before and after Skype® exchanges

Communicative Confidence Before				Communicative Confidence After			
	Observed frequency N	Expected frequency N	Residual Error		Observed frequency N	Expected frequency N	Residual Error
1.00	4 (14%)	4.8	-.8	1.00	4 (14%)	4.8	-.8
2.00	2 (7%)	4.8	-2.8	2.00	3 (10%)	4.8	-1.8
3.00	10 (34%)	4.8	5.2	3.00	6 (21%)	4.8	1.2
4.00	4 (14%)	4.8	-.8	4.00	11 (38%)	4.8	6.2
5.00	8 (28%)	4.8	3.2	5.00	3 (10%)	4.8	-1.8
6.00	1 (3%)	4.8	-3.8	6.00	2 (7%)	4.8	-2.8
Total	29			Total	29		

Thus, while there was an increase in the number of respondents on the top option, many more chose the '4' option than the '5' option after the intervention. The question that should be asked is: Why was there a slight decrease in CC on the self-report measure after the Skype® exchanges? Unfortunately, the results in Table 7 do not reveal very much due to the fact that the difference was minimal.

4.5. Willingness to communicate

The results of the WTC results in Table 8 further demonstrate the influence of the Skype® Exchanges. As can be seen, the number of students who opted for the ‘1’ option was 8 before the exchanges, and only 1 afterwards.

Table 8. The Willingness to Communicate results before and after Skype® exchanges

	<u>Willingness to Communicate Before</u>			<u>Willingness to Communicate After</u>		
	Observed frequency <i>N</i>	Expected frequency <i>N</i>	Residual Error	Observed frequency <i>N</i>	Expected frequency <i>N</i>	Residual Error
1.00	8 (28%)	4.8	3.2	1.00	1 (3%)	-3.8
2.00	3 (10%)	4.8	-1.8	2.00	3 (10%)	-1.8
3.00	4 (14%)	4.8	-.8	3.00	7 (24%)	2.2
4.00	4 (14%)	4.8	-.8	4.00	7 (24%)	2.2
5.00	5 (17%)	4.8	.2	5.00	9 (31%)	4.2
6.00	5 (17%)	4.8	.2	6.00	2 (7%)	-2.8
Total	29			Total	29	

This is a large decrease in this numerical choice – and the fact that there are so few indicates that there should logically be a corresponding increase in the other options. These increases appear in the ‘3’, ‘4’, and ‘5’ choices, which is a reversion to the mean. It would have been desirable to see an increase in the ‘6’ choice, but unfortunately this number actually decreased. However, the lowest option was chosen eight times before the exchanges, and only once after the exchanges – a decrease from 28% to 3% after – a clear sign of an increase in WTC.

4.6. Desire to travel abroad

In Table 9, the Desire to Travel Abroad item results are very positive after the Skype® exchanges. Please notice that five students chose the ‘1’ option before the intervention, while no students opted for this choice after the exchanges – from 17% to 0.

Table 9. The desire to travel abroad results before and after Skype® exchanges

	<u>Desire to Travel Abroad Before</u>			<u>Desire to Travel Abroad After</u>		
	Observed frequency <i>N</i>	Expected frequency <i>N</i>	Residual Error	Observed frequency <i>N</i>	Expected frequency <i>N</i>	Residual Error
1.00	5 (17%)	5.8	-.8	1.00	0 (0%)	0
2.00	0 (0%)	0	0	2.00	2 (7%)	-3.8
3.00	2 (7%)	5.8	-3.8	3.00	1 (3%)	-4.8
4.00	2 (7%)	5.8	-3.8	4.00	3 (10%)	-2.8
5.00	10 (34%)	5.8	4.2	5.00	10 (34%)	4.2
6.00	10 (34%)	5.8	4.2	6.00	13 (45%)	7.2
Total	29			Total	29	

Also, there were 10 students who chose a ‘6’ before the exchanges, yet 13 students chose it after them. This is the highest number / percentage of any numerical choice of any of the items.

Clearly, after reviewing all of the results – including the parametric *Mean* change increases, effect sizes, statistical power, and the non-parametric χ^2 results, the students' affect was improved as a result the Skype[®] intervention.

5. Discussion

As mentioned above, the author proposed two research questions. The first, *Will there be increases in the χ^2 results for the post-intervention data?* can be answered by simply observing the results in Table 3 and comparing them to the results in Table 2. The answer to this question is 'yes' for all of the items with the exception of CC.

The second question, *Will the χ^2 output data show changes in the distribution of the student selections of the numerical options that will support the quantitative results in the previous article (Ockert, 2015a)?* can be positively answered since the results in Tables 4, 5, 6, 8, and 9 all show a decrease in the lowest options, which resulted in increases in the three highest numerical choices.

Based on the research questions, two hypotheses were offered. Hypothesis 1, *The post-intervention χ^2 results will show increases, indicating less parsimony in the data in overall, with a concentration of results in the higher numerical choices*, has been shown to be true for FLAs, IP, Motivation, WTC, and Desire to Travel Abroad – all of the items except CC – in Table 3 compared with the results presented in Table 2. This indicates less parsimony in the data overall in comparison with the pre-intervention results. Hypothesis 2, *The post-intervention χ^2 tables for the individual items will show results that illuminate the previously reported results in Ockert, 2015a*, is answered with the data visible in Tables 4, 5, 6, 8, and 9. These data show us exactly where the students responses vary in comparison with the pre-intervention results and provide a clear understanding of why there were increases in the descriptive statistics provided in Table 1.

6. Conclusions

Clearly, there are positive implications of the present research for classroom use. While the small-scale study reported on in the current article may not be generalizable to the general EFL population globally, there are certainly compatible opportunities in the JEFL – and similar contexts – and any similar studies would be most welcome. There are, however, several aspects of such exchanges that must be taken into account before engaging in them. The first, of course, is the time involved to set them up, which includes finding a teacher and student group willing to participate in such an intervention. Second, securing the permission from school

administrators is also time consuming. The privacy rights of students must be also taken into consideration.

Despite positive results, there are, however, limitations to the present study. For example, it would have been better to keep a direct track of each participant before and after the intervention, as this would have allowed individual specific comparisons in a pre-post experimental study. However, the results presented herein clearly show positive changes in the numerical selection of the answer choices. However, the χ^2 result tables allow us to see exactly where these positive increases occurred. Another shortcoming of the present study is the lack of qualitative results. The students who chose either of the top two choices did respond in writing as to why they made that choice. The results will be reported in a future paper.

Therefore, based on the results herein – including the descriptive statistics – the author firmly believes that the increases were due to the Skype[®] exchanges.

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Appendix

English translation of the questionnaire items using a six-point Likert-type scale from 1 (*Completely Disagree*) to 6 (*Completely Agree*).

1. I like foreign language (English) activities.
2. I want to know more about foreign countries (different cultures).
3. To communicate in English, I want to study more.
4. I have confidence to communicate using simple English.
5. For myself, I want to communicate with foreigners in English.
6. I want to go overseas at some time.

EFFECT OF BLENDED LEARNING USING GOOGLE CLASSROOM ON WRITING ABILITY OF EFL STUDENTS ACROSS AUTONOMY LEVELS

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Abstract

A lot of studies have shown that the integration of the Internet in the teaching process in the classroom, or commonly called 'blended learning,' improves EFL students' writing ability. Nonetheless, the effect of blended learning using Google Classroom on EFL students' writing ability by considering autonomy levels has not been conducted yet. Therefore, this study aimed to examine the effect of blended learning using Google Classroom on writing ability of EFL students across autonomy levels. This study involved 53 third semester students taking Essay Writing course in two classes at Universitas Negeri Malang, Indonesia. One of the classes received blended learning using Google Classroom and the other was taught in a conventional way. Pre-test and post-test were given to students in the two groups to know their writing ability before and after the treatment. The students in the experimental group were also given a questionnaire to know their autonomy levels. The results of the study showed that the writing ability of the EFL students taught by using blended learning using Google Classroom was better than that of the other group. Besides, the high autonomous EFL students outperformed the low autonomous EFL students in their writing ability.

Keywords: Autonomy levels; blended learning; EFL students; Google Classroom; writing ability

1. Introduction

Many studies revealed students' difficulties in second/foreign language writing (e.g. Ahmed, 2010; Abdulkareem, 2013; Shukri, 2014). The difficulties in writing include how to write a thesis statement, formulate topic sentences, develop ideas, establish cohesion and coherence, utilize proper vocabulary, and apply correct grammatical rules. These difficulties cannot be overcome easily within a limited period of time in writing classes. Due to the fact that the time allotment of writing classes in university level is limited, it is high time to optimize the use of

information and communication technology (ICT) to conduct blended learning to help the students improve their writing ability.

Blended learning is an instruction combining the advantages of both face-to-face teaching in the classroom and online sessions (Challob, Bakar & Latif, 2016). It means that the teaching and learning activities happen both in the classroom and in the online contexts. The online sessions are regarded as an extension of the face-to-face teaching interaction. Therefore, the materials the students learn with in the online sessions supplement the materials they use in the classroom (Staker & Horn, 2012). Hence, for the online sessions, teachers typically give the students additional materials and exercises related to the topics being discussed in face-to-face classroom and send the materials through online platforms. The online platforms will serve as virtual classrooms.

To date, several studies had examined the effect of blended learning on students' writing skills (Adas & Bakir, 2013; Purnawarman, Susilawati & Sundayana, 2016; Sulisworo, Rahayu & Akhsan, 2016). Although those studies used different online platforms like *Moodle*, *Edmodo*, and *Facebook*, the results exposed that blended learning was able to increase the students' skills in using suitable topic sentences, shaping and organizing ideas, developing more coherent paragraphs, and utilizing appropriate grammar and mechanics as well as engaging them to actively participate in the classroom learning. However, in implementing blended learning, many teachers have used common online platforms such as *Moodle* (e.g. Adas & Bakir, 2013; Ginosyan & Tuzlukova, 2015; Lien, 2015), *Edmodo* (e.g. Shams-Abadi, Ahmadi & Mehrdad, 2015; Charoenwet & Christensen, 2016; Purnawarman, Susilawati & Sundayana, 2016), and *Facebook* (e.g. Barrot, 2016; Rodliyah, 2016; Sulisworo et al., 2016) as their virtual classrooms.

Studies on blended learning carried out by means of other online platforms are still rare, especially in English Language Teaching context. Agustina and Cahyono (2017) reported EFL teachers and students' perceptions in using *Quipper School* as an online platform for extended EFL learning. Teachers and students in their study thought that *Quipper School* was good not only for coping with the limited time for learning at school, but the platform also contributed to the improvement of the students' EFL learning. Another online platform which is rarely used is *Google Classroom*. Pappas (2015) outlined the pros and cons of the use of *Google Classroom* as an online learning platform, yet the efficacy of the platform had not been widely known. In fact, *Google Classroom* can be accessed from not only computers or laptops but also tablets or smartphones. The application is available for both iOs and Android, so it can be accessed easily anywhere at any time. Furthermore, it can facilitate teachers to create, share, and grade tasks

easily. As a part of G Suite for Education package, it is automatically integrated with some Google applications, such as *Gmail*, *Drive*, *Docs*, *Sheets*, *Slides*, *YouTube*, and *Calendar* (SeymourEducate, 2014). As an online platform for blended learning, *Google Classroom* supports the students in communication and collaboration with others, offers instant feedback from the teacher and provides them with a personalized learning setting (Pappas, 2015).

In blended learning context, learner autonomy is assumed to play an important role in the success of online learning (Lynch & Dembo, 2004). Holec (1981) defines learning autonomy as a capacity to take control of one's own learning. Students with high autonomy levels are likely to have the ability to continue learning no matter what the circumstances are and assumed to have high proficiency level as well. In writing context, the findings of the research done by Masita (2016) and Masoumzadeh (2016) showed that there was a significant and positive relationship between learner autonomy and writing proficiency. Accordingly, it can be assumed that when the students have high autonomy level, they are likely to have high writing proficiency level as well.

2. The study

2.1. The aim of the research

Since there has been highly limited research investigating the effect of blended learning on writing ability taking into account autonomy levels of EFL students, this study aimed to look into whether the EFL students with different autonomy levels engaged in blended learning using *Google Classroom* attained different impacts on their writing ability. It attempted to answer the following questions:

1. Do the EFL students engaged in blended learning using *Google Classroom* attain better writing ability than those taught in a conventional way?
2. Is there any significant difference in writing ability between the high and low autonomous EFL students engaged in blended learning using *Google Classroom*?

2.2. Method

This quasi-experimental research aimed to examine the effect of blended learning using *Google Classroom* on writing ability of EFL students across autonomy levels. It involved two classes of third semester students of English Department of Universitas Negeri Malang, Indonesia, who attended the *Essay Writing* course. The first class which consisted of 28 students was determined as the control group, while the other class which consisted of 25 students was

determined as the experimental group. The students in the experimental group were divided into two categories, namely high and low autonomous EFL students. They were divided by using a questionnaire measuring their autonomy levels.

This research used two kinds of instruments, namely writing tests and a learner autonomy questionnaire. The writing tests consisting of pre-test and post-test were administered to the experimental and control groups to know their writing ability before and after the treatment. The writing prompts were validated by an expert in English Language Teaching and Assessment, a Professor in the English Department of Universitas Negeri Malang. In the writing tests, the students were required to choose one of three topics and to write an essay in 90 minutes. The topics given in the pre-test were Types of Bags, Types of Transportation, and Types of Internet Users; while the topics given in the post-test were Types of Clothes, Types of Education, and Types of Social Media.

The learner autonomy questionnaire was used to measure the autonomy levels of EFL students in the experimental group and to classify them into high and low autonomous EFL students. The questionnaire was adapted from an English translated questionnaire used by Arias (2015) adapted from a five-point Likert scale questionnaire ranging from strongly agree (5 points) to strongly disagree (1 point) designed by Xu, Wu, and Peng (2004). We made the statements more specific to writing context, by elaborating them further into examples. However, in the modified version, we only used four-point Likert-scale ranging from strongly agree (4 points), agree (3 points), disagree (2 points), and strongly disagree (1 point) to categorize the students into two tendencies: high and low autonomy levels. The Learner Autonomy Questionnaire used in this study is shown in Appendix 1. As evidenced by a pilot study using the questionnaire, the obtained Alpha coefficient was .899, meaning that the instrument had very high reliability.

The research was conducted in eight meetings including the pre-test and post-test sessions. Nonetheless, only the experimental group received a treatment of blended learning using *Google Classroom*. While the experimental group had inside and outside class activities, the control group only had inside class activity. The outside class activities for the experimental group comprised filling out learning log to monitor students' self-learning, having online discussion and consultation with peers and the teacher (the first author of this article), doing online writing assignments, and giving and receiving online feedback. The schedule of treatment for the two groups is shown in Table 1.

Table 1. Schedule for treatment

Meeting	The Experimental Group (Blended Learning using Google Classroom)	The Control Group (The Conventional Teaching)
1	<ul style="list-style-type: none"> • Pre-test 	<ul style="list-style-type: none"> • Pre-test
2	<p>Inside class activities</p> <ul style="list-style-type: none"> ● Familiarization with <i>Google Classroom</i> ● Training to fill out learning log ● Discussion and exercises ● Outline making <p>Outside class activities</p> <ul style="list-style-type: none"> ● Materials, exercises, and discussion ● Learning log fulfillment ● Outline submission ● Teacher feedback 	<ul style="list-style-type: none"> • Final draft submission ● Discussion and exercises ● Outline making
3-6	<p>Inside class activities</p> <ul style="list-style-type: none"> ● Discussion of materials, exercises, and feedback given online ● Essay writing <p>Outside class activities</p> <ul style="list-style-type: none"> ● Materials, exercises, and discussion ● Learning log fulfillment ● Essay submission ● Teacher feedback ● Peer feedback (in the sixth meeting) ● Essay revision 	<ul style="list-style-type: none"> ● Materials and exercises ● Essay writing ● Essay submission ● Teacher feedback ● Essay revision
7	<p>Inside class activities</p> <ul style="list-style-type: none"> • Presentation of results of peer feedback • Whole class discussion • Whole draft revision <p>Outside class activities</p>	<ul style="list-style-type: none"> ● Peer feedback ● Presentation of results of peer feedback ● Whole class discussion ● Whole draft revision
8	<ul style="list-style-type: none"> • Post-test 	<ul style="list-style-type: none"> • Post-test

The results of the pre-test and post-test were assessed by two raters using scoring rubric adapted from EFL Composition Profile by Jacobs, Zingraf, Wormuth, Hartfield and Hughey (1981). The essays were graded on content (30 points), organization (20 points), vocabulary (20 points), language use (25 points), and mechanics (5 points). The scores obtained from both raters were combined and the average scores were recorded as the final scores. In the pre-test, the obtained Pearson coefficients of both the experimental group and the control group were .611 and .618, respectively. In the post-test, the obtained Pearson coefficients of both the experimental group and the control group were .791 and .627, respectively. Moreover, in the pre-test, the obtained Cronbach's Alpha coefficients of both the experimental group and the control group were .863 and .676, respectively. In the post-test, the obtained Cronbach's Alpha coefficients of both the experimental group and the control group were .603 and .743, respectively. It meant that all the scores obtained from the two raters had high inter-rater reliability.

2.3. Results and findings

The data taken from the pre-test and post-test were tested in terms of homogeneity and normality by means of SPSS 23.0. The results of the homogeneity testing displayed that the observed significance levels for Levene's test of both the experimental group and the control group in the pre-test and the post-test were .916 and .092, respectively. Those were higher than .05 meaning that the data was homogeneous. Additionally, the results of the normality testing depicted that the observed significance levels for Kolmogorov-Smirnov test of both the experimental group and the control group in the pre-test and the post-test were all .200. This was higher than .05 meaning that the data was normally distributed. As a result, the data could be analyzed using parametric statistics in the form of *t*-test for independent sample.

2.3.1. Comparison of the results of the pre-test of the experimental and control groups

The descriptive statistics of the pre-test scores of both the experimental and control groups were shown in Table 2.

Table 2. Descriptive statistics of the pre-test scores of the experimental and control groups

Group	Sample (N)	Minimum	Maximum	Mean	SD
Experimental	25	62	78	70.36	3.88
Control	28	64	79	71.88	3.81

Table 2 showed that the means of the experimental group and the control group were 70.36 and 71.88. In sum, the mean of the control group was higher than the experimental group by 1.52. To find out whether the difference was significant or not, *t*-test for independent sample was conducted by means of SPSS 23.0. The result is shown in Table 3.

Table 3. Statistical comparison of the means of the pre-test

Variable	Group	N	Mean	T	df	Sig.	Description
Writing Ability	Experimental	25	70.36	-1.434	51	.158	No significant difference
	Control	28	71.88				

Table 3 showed that the obtained significance level of the pre-test scores of both the experimental group and the control group was .158, which was higher than .05 (.158 > .05). It meant that there was no significant difference in the means of the pre-test in writing a classification essay between the experimental group and the control group.

2.3.2. Comparison of the results of the post-test of the experimental and control groups

The post-test scores of both the experimental group and the control group were shown in Table 4.

Table 4. Descriptive statistics of the post-test scores of the experimental and control groups

Group	Sample (N)	Minimum	Maximum	Mean	SD
Experimental	25	78	91	84.36	4.23
Control	28	75	90	80.61	3.27

Table 4 showed that the means of the experimental group and the control group were 84.36 and 80.61. In brief, the mean of the experimental group was higher than the mean of the control group by 3.75. Accordingly, t-test for independent sample was done again because the result of the pre-test revealed no difference between the two groups. The result of the statistical comparison is shown in Table 5.

Table 5. Statistical comparison of the means of the post-test

Variable	Group	N	Mean	T	df	Sig.	Description
Writing Ability	Experimental	25	84.36	3.633	51	.001	Significant difference
	Control	28	80.61				

Table 5 showed that the obtained significance level of the post-test scores of the experimental group and the control group was .001 which was lower than .05. It meant that the mean score of the experimental group was significantly higher than the control group. In other words, it was proved that the EFL students taught by using blended learning using *Google Classroom* had better writing ability than those taught without using blended learning.

2.3.3. Comparison of the results of the post-test of the experimental group across autonomy levels

Since it was found that blended learning using *Google Classroom* was effective in improving the writing ability of the EFL students, their autonomy levels were also investigated to know whether different autonomy levels had different impacts on the students' writing ability. The descriptive statistics of the post-test scores of the experimental group across autonomy levels were shown in Table 6.

Table 6. Descriptive statistics of the post-test scores of the experimental group across autonomy levels

Group	Sample (N)	Minimum	Maximum	Mean	SD
High	12	80	91	86.21	3.91
Low	13	78	91	82.66	3.91

Table 6 showed that the means of the high autonomous EFL students was higher than the low autonomous EFL students by 3.55. It was evident that the high autonomous EFL students engaged in blended learning using *Google Classroom* had better writing ability than the low autonomous EFL students engaged in blended learning using *Google Classroom*. To know whether the difference was significant or not, t-test for independent sample was carried out again. The result was shown in Table 7.

Table 7. The result of t-test for independent sample in the post-test of the experimental group across autonomy levels

Variable	Group	N	Mean	T	df	Sig.	Description
Writing Ability	High	12	86.21	2.272	23	.033	Significant difference
	Low	13	82.66				

Table 7 showed that the obtained significant level of the post-test scores of the experimental group across autonomy levels was .033 which was lower than .05. It meant that the mean of the high autonomous EFL students taught by using blended learning using *Google Classroom* was significantly higher than the low autonomous EFL students taught by the same strategy. In other words, it was demonstrated that blended learning using *Google Classroom* works better for the high autonomous EFL students than the low autonomous EFL students in improving their writing ability.

3. Discussion

This section discusses the results of the research examining the effect of blended learning using *Google Classroom* on writing ability of EFL students across autonomy levels. The discussion is based on the two research questions.

3.1. The effect of blended learning using *Google Classroom* on writing ability of EFL students

The result of the present study proved that blended learning using *Google Classroom* was effective in improving the writing ability of the EFL students. This result supported the

previous research on the effect of blended learning on writing ability. For example, the result was in line with the previous application of *Google Classroom* (i.e., Fallon, 2016) and the findings of other research studies (Adas & Bakir, 2013; Geta & Olango, 2016; Liu, 2013; Stapa, Ibrahim & Yusoff, 2015). While many of the results of the previous research studies were based on the application of *Edmodo* (Purnawarman, Susilawati, & Sundayana, 2016), *Facebook* (e.g. Sulisworo, Rahayu, & Akhsan, 2016; Shih, 2011), and *Moodle* (e.g., Ginosyan & Tuzlukoza, 2015) as the virtual classrooms, the research studies reported similar findings in that the application of blended learning helped increase the writing ability of EFL students. The components of writing ability improved by the application of blended learning include content, organization, vocabulary, language use, and mechanics. In addition, the application of blended learning also encouraged the EFL students to participate more in the teaching and learning process both inside and outside the classroom, as well as improved their interaction with classmates and the teacher.

Since the students in the experimental group were supplied with materials and exercises online in addition to what they had inside the class, they could get more exposure to the target language. They were able to open the materials, complete the exercises, and do the activities anywhere and anytime through computers, laptops, tablets or smartphones as long as they had the internet connection. As a result, more exposure to online materials and exercises resulted in better writing ability (Adas & Bakir, 2013).

As the outside class activities, the students had online discussions and online peer feedback. The online discussions made the students interact and collaborate more with their peers and the teacher, especially the shy students and low achievers (Geta & Olango, 2016). In the classroom, many students also participated more in the review of the materials given online. It made them engaged more in the teaching and learning process conducted in the classroom (Banditvilai, 2016). On top of that, the online peer feedback was conducted through *Google Docs* by providing feedback to each other in terms of content, organization, vocabulary, language use and mechanics. They could receive writing assistance from their classmates and the teacher in the form of comments and suggestions (Challob, Bakar, & Latif, 2016). They could also have an online consultation with the teacher if they had any questions regarding the feedback given online. In the end, the interaction and collaboration between the teacher and students as well as students and students could be increased (DiCicco, 2016).

3.2. The effect of blended learning using *Google Classroom* on writing ability of EFL students across autonomy levels

The result of the analysis showed that the implementation of blended learning using *Google Classroom* improved the writing ability of the high autonomous EFL students better than the low autonomous EFL students. This was in accordance with the prior research studies related to learner autonomy, blended learning, and writing ability. The result of this study was in line with the result of the research studies conducted by Lynch and Dembo (2004), Yao (2017), and Yen and Liu (2009), showing that learner autonomy was an essential factor in affecting success of blended learning due to students' improvement of learning achievement. It was also in favor of the result of the study conducted by Bazrafkan and Bagheri (2014), Masita (2016), and Masoumzadeh (2016) proving that there was a positive relationship between learner autonomy and writing ability.

Holec (1981) argued that high autonomous students tend to establish their own learning objectives, select learning materials, choose strategies to be implemented, monitor their progress and evaluate materials they have learned with. In the present study, all of the students were required to fill out student learning log after studying the materials given in *Google Classroom* to monitor their self-learning. However, not all the students submitted the learning log on time. Overdue submission might reflect that they possessed poor time management skills and low autonomy levels as high autonomous students were usually able to organize their time efficiently and were aware of the deadline. Lynch and Dembo (2004) mentioned that students who managed their time well tended to perform better than students who did not have good time management skills.

In addition, the high autonomous students tended to seek for materials other than those given in *Google Classroom*. As argued by Geta and Olango (2016), the active learners look for information on their own without relying on the teacher to feed them with information. The active learners connect the information obtained from the given materials with the information acquired from their browsed materials to make them understand more about the topic. Since they learn from various sources, they can actively participate in the online sessions and classroom discussion to share their knowledge to others. During the discussion or online consultation with the teacher, they do not hesitate to ask questions to others when there is something that they do not understand (Ismail, 2015).

Besides, the fulfillment of the learning log helped the students to monitor their progress. This made them more conscious of their progress and helped them to decide what they had to do and learn afterwards (Lazar, 2013). As a result, high autonomous students were able to give

suggestions about what they want to do and learn in the next meeting, so the teacher could take those suggestions into account to address their needs and help them excel at learning.

Moreover, as the students uploaded their essays online, they could read their classmates' contributions anytime and anywhere. They could compare and contrast their essays with those of their classmates. By doing this, they could identify their strengths and weaknesses compared to their classmates. As said by Cakici (2017), high autonomous students are able to recognize their strengths and weaknesses. After knowing those, they can reflect on what needed to be improved to make their writing better.

Furthermore, the high autonomy students were capable of determining their own writing goals, opting the best strategy and taking notice of the learning process (Masita, 2016). They could find suitable strategies to improve their ability, whether it was brainstorming, clustering or outlining. Consequently, they knew what strategy facilitated their essaywriting more. On top of that, they practiced writing not only in the classroom but also outside it, be it by themselves or with others. They used available learning sources to write a blog, make a writing journal and do peer reviewing with others. They could find opportunities to practice their writing (Hu, 2014), which, in turn, enhanced their writing ability.

Despite the fact that the high autonomous EFL students outperformed the low autonomous ones in terms of writing ability in a blended learning environment, it did not mean that teachers could not teach the low autonomous EFL students by using this strategy. In this sense, many studies argue that the implementation of blended learning could increase autonomy levels as it encourages students to be independent and self-regulated learners (e.g. Banditvilai, 2016; Farivar & Rahimi, 2015; Luke, 2006; Snodin, 2013). The teachers might modify the implementation of blended learning to address the low autonomous students. In this case, they could lower the proportion of activities performed online compared to those done in the classroom to make them get used to it first and increase its percentage bit by bit as time goes by. Additionally, they might conduct more online collaborative learning activities to promote learner autonomy (Feri & Erlinda, 2014). Those activities could be in the form of online group discussion, online collaborative writing or online peer feedback.

4. Conclusions

The findings of the current study supported the previous research that blended learning positively affects the writing ability of EFL students, especially when mediated by *Google Classroom*. In addition, while enriching their writing ability, this strategy worked better for the high autonomous EFL students than the low autonomous EFL students. However, it did not

mean that this strategy could not be used to teach the low autonomous EFL students at all as some studies suggested using it to increase learner autonomy. In this sense, teachers might modify its implementation to adjust to the autonomy levels of the students.

On the basis of the study, some pedagogical recommendations can be made for English teachers and future researchers. English teachers are encouraged to implement blended learning using *Google Classroom* to enhance the writing ability of the EFL students and take account into their autonomy levels while deciding on the proportion and types of activities done both online and in the classroom. As regards future researchers, it is recommended that they delve further into the effect of blended learning using other online platforms across other intervening variables.

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Appendix 1

LEARNER AUTONOMY QUESTIONNAIRE

Direction: For each statement, please put a tick (✓) in the column showing your attitude towards the statement. The meaning of the options are as follows: SA (Strongly Agree), A (Agree), D (Disagree) and SD (Strongly Disagree)

A. Evaluation of English teacher's aims

No	Statements	SA	A	D	SD
1.	I clearly understand the teacher's aims in teaching writing.				
2.	It is easy for me to make the teacher's goals in teaching writing into my own goals.				
3.	I clearly understand the importance of making the teacher's goals in teaching writing into my own goals as well as studying hard to achieve those goals.				
4.	I clearly understand the teacher's intention during the teaching and learning activities in writing.				
5.	In class, it is easy for me to keep up with the teacher's pace during the teaching and learning activities in writing.				

B. Evaluation of establishing study goals

6.	When learning writing, I establish practical goals for myself based on my true English level.				
7.	I am good at establishing study goals in learning writing based on the requirements outlined by the teacher.				

C. Evaluation of establishing study plans

8.	Outside of assignments given by the teacher, I have a clear plan for studying on my own to improve my writing ability.				
9.	I am good at adjusting my study plans in learning writing based on my progress.				
10.	I am good at creating a practical study schedule in learning writing for myself.				

D. Evaluation of learning strategies' implementation

11.	I understand the learning strategies to improve my writing ability.				
12.	I can consciously employ brainstorming to improve my writing ability.				
13.	I can consciously employ clustering to improve my writing ability.				
14.	I can consciously employ outlining to improve my writing ability.				

E. Evaluation of ability to monitor the usage of learning strategies

15.	I can consciously monitor the use of brainstorming during writing.				
16.	I can consciously monitor the use of clustering during writing.				
17.	I can consciously monitor the use of outlining during writing.				
18.	I am able to find and solve problems in my method of study to improve my writing ability.				
19.	I am conscious of whether or not my method of study to improve my writing ability is practical.				
20.	If I realize that my method of study to improve my writing ability is impractical, I quickly find a more suitable one.				

F. Evaluation of English learning process

21.	Outside of class, I practice my writing by writing a blog.				
22.	Outside of class, I practice my writing by making a writing journal.				
23.	I make an effort to overcome my anxiety that may hinder my writing improvement.				

24.	I make an effort to overcome my laziness that may hinder my writing improvement.				
25.	I use library to improve my writing ability.				
26.	I use internet to improve my writing ability.				
27.	I use dictionary to improve my writing ability.				
28.	I often learn writing with other people by practicing writing with classmates.				
29.	I often learn writing with other people by practicing peer reviewing with classmates.				
30.	It is easy for me to put newly learned vocabularies into my writing.				
31.	While practicing writing, I am able to realize my own mistakes.				
32.	While practicing writing, I am able to correct my own mistakes.				
33.	When I discover my mistakes in writing, I understand the underlying reason for making them is because of interference from my mother tongue.				
34.	When I discover my mistakes in writing, I understand the underlying reason for making them is because of a lack of familiarity with grammar rules.				
35.	I select effective method to improve my writing ability by keeping a writing journal.				
36.	I select effective method to improve my writing ability by updating a writing blog.				
37.	During the process of completing a certain writing task, I keep in line with my predetermined plan.				
38.	During the process of completing a certain writing task, I often check and correct my comprehension of previously studied material.				

**A STUDY INTO THE IMPACT OF THE CHOICE
OF COGNITIVE AND META-COGNITIVE STRATEGIES AND
PODCASTS ON VOCABULARY GAIN AND RETENTION LEVELS
IN THE *TELEGRAM*-BASED E-LEARNING CONTEXT**

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Abstract

Forming synchronous and asynchronous learning networks utilizing internet has been simplified by new technologies. The present study investigated the effects of learners' choice of cognitive and meta-cognitive strategies on vocabulary gain and retention levels in the e-learning context. 180 participants took part in this study and 120 audio podcasts plus still and animated pictures were presented to the participants in the *Telegram* channel. 23 strategy items on a 5-point Likert scale were presented to the participants by means of a voting robot system on the main page of the channel after the treatment. Additionally, an immediate as well as a delayed vocabulary posttest in the form of multiple-choice were administered, separately. Four one-way ANOVAs were run in order to answer the questions. The results revealed that the choice of cognitive strategy significantly affected the level of vocabulary gain and retention. In other words, learners who applied more cognitive strategies had higher levels in vocabulary gain and retention. However, the choice of meta-cognitive strategy had no considerable influence on vocabulary gain and retention.

Keywords: e-learning; cognitive strategy; meta-cognitive strategy; vocabulary gain; podcasts; vocabulary retention

1. Introduction

The Internet has presented new techniques of education for teachers and students in order to expand collaboration. Moreover, it provides tools to distribute and share knowledge among educators. Educational resources such as articles, books as well as images can be digitized and distributed via the Internet. As Beldarrain (2006) mentions, the efficacy as well as flexibility of

social software that enables groups of people to collaborate via the Internet have added dimensions to online learning.

In addition, podcasts motivate learners outside the classrooms and several authors (Ducate & Lomicka, 2009; Lord, 2008; O'Bryan & Hegelheimer, 2007) reported learners' positive attitude. Meanwhile, more attention is needed for further research in order to encourage learners to expand their lexical knowledge. The growing availability of technology has led many researchers to improve technologies as means of improving learners' second language vocabulary skills. *Telegram* would be exemplified as a technology for distance teaching of foreign vocabulary items. Furthermore, the strategies that learners use to improve their learning in distance education programs have attracted the attention of many scholars because learners are different and they use various strategies depending on their consideration which strategies can help them learn (Cotterall, 2000).

Educators attempt to make greatest use of target language input based on students' proficiency levels and interests. Recently, podcasts have been extensively utilized as technological tools in teaching and learning languages. Many studies on podcasting (Ashton-Hay & Brookes, 2007; Istanto, 2011; Li 2010; Rosell-Aguilar, 2007) have claimed that the use of podcasts in language learning can increase learners' academic performances, motivation as well as learning.

2. Literature review

2.1. Distance language education

As Moore (1993) believes, distance language education "is not simply a geographical separation of learners and teachers, but, more importantly, is a pedagogical concept" which describes "the universe of teacher-learner relationships that exist when learners and instructors are separated by space and/or by time" (p. 22). Some students needed to study individually alongside part-time work and they chose distance language education. However, distance language education developed progressively with more sophisticated use of methods and media. The most important progress in distance language education has been the improvement of greatly interactive tele-communicative media such as computer audio, audio-graphic and video networks.

Picciano (2002) suggested that learners can collaborate without feeling a sense of belonging to the group while interaction may demonstrate presence. Technology simplifies

collaboration as well as interaction. Distance education instructors can provide podcasts in order to support both learning and teaching. Collaborative technologies such as blogs, wikis, podcasts and social software affect the role of the instructor. The instructor is more of a “partner in learning” than a facilitator (Beldarrain, 2006). Shahid and Ali (2017a) believe that the role of the teacher is vital in using podcasts in teaching.

2.2. Podcasts in language education

The word *podcast* is a combination of words ‘iPod’ and ‘broadcast’ (Istanto, 2011). Nevertheless, podcasts can be played not just by iPods but also by MP3 players and other types of media players on the computers and mobile devices. Sze (2006) defines podcasts as “audio (sometimes video) programs on the web which are usually published at regular intervals” (p. 116). Episodes can be downloaded and listened to on an MP3 player, iPod or a computer. What makes podcasting distinct is the capacity they have for “subscription”. It means that listeners can subscribe to their favorite podcasts through an RSS (Really Simple Syndication) feed. In addition, their computers as well as mobile phones will receive ‘alerts’ whenever new episodes have been posted. Moreover, when the program is opened, podcatcher software programs such as *iTunes* will download the new episodes automatically.

Podcasts support distance education learners in accessing lessons, tasks and assignments in the form of audio or video. Evans (2008) believes that learners are more interested in learning with podcasts than via textbooks or traditionally conducted lectures for the reason that they are more familiar with technologies. “Podcasting is one of the powerful, emergent technological media that has been used in education for many years” (Hasan & Hoon, 2013, p. 128) as it proposes models of authentic materials as well as real language to learners (Li, 2010; Thorne & Payne, 2005). Therefore, it is strongly connected with the socio-cognitive view of language learning which focuses on real language use in an authentic context.

2.3. Vocabulary knowledge

Vocabulary knowledge is essential for learners’ comprehension and production in the four skills. As Schmitt and Meara (1997) believe, “there has been a growing realization that total language proficiency consists of much more than just grammatical competence” (p. 18). Hai-peng and Li-jing (2007) mention that “without adequate vocabulary knowledge, a second language learner’s conversational fluency and reading comprehension will meet difficulties” (p.55). They suggest

that multimedia environment and vocabulary teaching are impressive techniques to develop learners' vocabulary as well as English level.

Read and Chapelle (2001) suggested that positive washback on teaching as well as learning processes should be generated through vocabulary assessment. According to Kim and Gilman (2008) as well as Schuetze and Weimer-Stuckmann (2010), a number of steps are included in the learning process such as the diagnosis of new words, the comprehension of form as well as meaning, the stabilization of this knowledge in learners' memories and the stimulation of vocabulary production.

Learners use various means and strategies to incorporate meanings as well as forms of vocabulary items. However, as Blachowics and Fisher (2000) as well as Graves (2000) remark, both direct and indirect methods of instruction are needed for learners regarding learning vocabulary and there is no single best method for vocabulary learning. Pearson, Heibert and Kamil (2007) believe that "after a nearly fifteen-year absence from center stage, vocabulary has returned to a prominent place in discussion of reading, and it is alive and well in reading instruction and reading research" (p.282). Moreover, Isazadeh, Makui and Ansarian (2016) are positive that technology has a significant influence on vocabulary learning. Mayer (2005) pinpoints that learning from words and pictures is more intense than from words alone. Moreover, Mayer and Moreno (2003) agree that processing and storing information that is received through two channels is better than processing information that is received from just one channel.

2.4. Language learning strategies

Language learning strategies, as Oxford and Crookall (1989) remark, comprise memory, compensation, cognitive, meta-cognitive, communication, social and affective strategies. Memory strategies are related to methods in order to collect as well as retrieve new information. Compensation strategies are behaviors that help compensate for missing knowledge. Cognitive strategies are those skills that directly influence and transform the language while meta-cognitive strategies are those behaviors that help focus, organize, plan as well as assess one's learning. Communication strategies are compensation strategies that are used in speaking. However, they can be used in listening, reading and writing as well. Social strategies are related to actions that involve other people in learning a language. Finally, affective strategies are learning operations

that are related to methods in order to increase control over emotions, motivations as well as attitudes regarding learning a language.

Chamot (2004) states that language learning strategies are “the conscious thoughts and actions that learners take in order to achieve a learning goal” (p. 14). Ehrman, Leaver and Oxford (2003) believe that there are three significant elements that make strategies useful: “(a) the strategy relates well to the L2 task at hand, (b) the strategy fits the particular student’s learning style preferences to one degree or another, and (c) the student employs the strategy effectively and links it with other relevant strategies” (p.315).

Ashton-Hay and Brookes (2011) investigated the language learning strategies students employed while using podcasts. The podcasts were uploaded in a web page in the Queensland University of Technology Blackboard Learning Management System. It was reported that language learning strategies simplified language learning. For instance, ‘Khalid’, a Saudi student, used a cognitive strategy to pay more attention to grammar and vocabulary which was reflected in the statements as well as arguments which were presented by the student and developed his writing within some weeks.

Chun and Plass (1997) explained how second language reading research is focused on the cognitive processes which are involved in reading. The authors suggest that integrating verbal and visual information especially through using multimedia can be effective. They highlight that vocabulary items associated with various types of multimedia are remembered better and longer when words are coded dually in two modes. Consequently, as Chun and Plass (1997) propose, studies should focus on the usefulness of specific sorts of multimedia for specific types of learners, specific cognitive processes as well as specific learning tasks.

Plass, Chun, Mayer and Leutner (1998) conducted another study and found that learners remembered word translations much better when they received both visual and verbal annotations. In addition, students realized the story better when they could choose their preferred mode of annotation. Al-Seghayer (2001) investigated the effect of image modalities (dynamic video and still picture) in improving vocabulary acquisition of 30 ESL students through a hypermedia-learning program. Printed text definition alone, printed text definition associated with still pictures, and printed text definition associated with video clips were the three situations examined. Based on the results, the video clips proved to be most effective in teaching vocabulary.

Moreover, Rao (2006) examined 225 Chinese students' strategy use at three levels including overall strategy use, the use of strategy categories and individual categories related to cultural and educational settings. It appeared that while the students used affective strategies the most, such features as the Chinese educational pattern, cultural beliefs and standards as well as English as a foreign language setting affected participants' application of language learning strategies.

Lee and Chan (2007) examined the potential of using complementary audio podcasts to decrease students' anxiety. The results revealed that students' anxiety and feelings of isolation were reduced and their sense of inclusivity was improved. In addition, students believed that podcasts were effective in improving their understanding of the subject and providing backup of what they had learnt. Although Evans (2008) believes that podcasting has significant potential as an advanced learning tool, Fose and Mehl (2007) are of the opinion that "students may possibly feel overwhelmed by the addition of more material in a course where podcast listening becomes a requirement" (p. 280).

While examining meta-cognitive beliefs and strategies of learners towards learning Chinese as a foreign language, Wang, Spencer and Xing's (2008) study showed that meta-cognitive beliefs and strategies affected learners' improvement. Moreover, those learners who tended to express autonomy used meta-cognitive strategies in order to be more successful.

Putman and Kingsley (2009) examined the effect of podcasts featuring science-specific vocabulary items on fifth-grade students' vocabulary development. It has been reported that learners were more motivated to learn science vocabulary and podcasts as learning tools greatly supported students in order to develop their vocabulary acquisition process.

However, Fernandez, Simo and Sallan's (2009) study into the usefulness of podcasting in higher education revealed that although podcasting was not a substitute for traditional resources in a course, podcasts profitably complemented the course. Moreover, they increased students' motivation by improving the contact between teachers and students. Furthermore, various ranges of student skills as well as learning methods were reported to be improved due to the use of podcasts.

Ducate and Lomicka (2009) conducted a study in order to find out whether podcasting can improve learners' pronunciation skills. Twenty-two students in intermediate German as well as French courses created five scripted pronunciation recordings and three spontaneous podcasts.

The results indicated that podcasting was perceived positively by learners and they enjoyed using podcasts throughout the semester.

Martin and Beckmann (2011) considered the effect of using podcasting in university students' learning Spanish. The results showed that students had a significant positive attitude towards the project and their listening skills improved.

Zarei and Elekaei (2012) conducted a study to investigate the effects of motivation and attitude on learner autonomy and language learning strategies of Iranian EFL learners. The results showed that there were significant relationships between motivation and learner autonomy and positive relationships between attitude and learner autonomy. Moreover, the level of motivation and attitude considerably affected students' choice of memory, compensation and affective strategies.

Elekaei, Faramarzi and Koosha (2015) investigated the effect of various types of glosses on reading comprehension, vocabulary gain as well as retention of 140 Iranian EFL learners. The results indicated that the interlinear gloss group was the best group in comprehending the text. Moreover, the group that received the interlinear glosses had the best results in vocabulary gain as well as retention.

Naseri and Motallebzadeh (2016) investigated the impact of podcasts on Iranian upper-intermediate EFL learners' self-regulation capacity as well as their perceptions toward using technology. The experimental group listened to podcast files while the control group listened to radio programs. The findings indicated learners' positive perceptions towards using podcasts in language learning and considerable increase in learners' self-regulation abilities.

Although many researchers have examined e-learning, podcasting, vocabulary knowledge and language learning strategies (Bolliger, Supanakorn, & Boggs, 2010; Evans, 2008; Faramarzi, Elekaei and Heidari Tabrizi, 2016; Mayer & Moreno, 2002; Wang, Spencer and Xing, 2008), few have conducted research into the effects of the choice of Iranian EFL learners' language learning strategies on their vocabulary gain and retention. Therefore, the purpose of the present study was to mainly focus on the effects of learners' vocabulary gain and retention levels on their choice of cognitive and meta-cognitive strategies in a process-oriented approach. The present study was an attempt to answer the following questions:

1. Does Iranian EFL learners' choice of cognitive and meta-cognitive strategies affect their vocabulary gain level significantly in instruction assisted by audio podcasts and animated pictures in an e-learning context?

2. Does Iranian EFL learners' choice of cognitive and meta-cognitive strategies affect their vocabulary retention level significantly in instruction assisted by audio podcasts and animated pictures in an e-learning context?

3. Methodology

3.1. Participants

The participants were selected from Iranian students (both male and female) learning English at Qazvin University of Medical Sciences and Andisheh Nou Foreign Language Institute in Qazvin, Iran. Random purposive sampling was utilized for the present study to select two groups of learners at the intermediate-level vocabulary proficiency. First, 280 learners were invited to take part in the present study and take the proficiency test. *Oxford Placement Test* was administered in order to homogenize the learners. Those learners who achieved more than one standard deviation away from (above or below) the mean were excluded from the subsequent analyses and 180 learners were selected as the intermediate level learners. The learners' age was from 17 to 30. Their first language was Persian and they studied English as a foreign language.

3.2. Materials

3.2.1. Podcasting tasks

120 audio podcasts plus still pictures as well as audio podcasts plus animated pictures were presented to the participants. The vocabulary items were chosen from *504 Absolutely Essential Words* that each EFL learner must learn. Twelve new words were presented to the participants during six days of the week and one test including multiple-choice tests and filling the blanks assignments was given to the participants on the seventh day of each week. The participants were asked to complete the exercises and send them back. The incorporation of these tests supported learners in an online environment and made the current study distinct from previous studies.

3.2.2. Telegram application

The network-based technology proposes advantages over the traditional classrooms in terms of comfort and range of access to materials and interlocutors. Yet, the network-based technology is not without difficulty. For example, the educator who is the most important source of input and

feedback and who can best make decisions is removed in many network-based teachings. *Telegram* is the world's fastest messaging application. It sends messages faster than any other application. In addition, *Telegram* has no restrictions on the size of the media and chats and it keeps messages safe from hacker attacks. It lets people access their messages from multiple devices and has the potential to be embraced not only by consumers and academic users, but also societal entities such as communities. *Telegram* allows people to integrate distinct sources of information into comprehensible schemas, capture and recall items or events that they would otherwise forget, enhance conversations by providing a way to exchange and share relevant information, and promote performing experiments and solving problems in the everyday world. Then, this application was applied in the present study and the e-instructor was present and supported the participants by designing tests.

3.3. Research instruments

In order to obtain data to answer the research questions, the following instruments were utilized:

- 1) A proficiency test
- 2) A language learning strategy questionnaire
- 3) An immediate vocabulary posttest
- 4) A delayed vocabulary posttest

First, in order to homogenize the participants, a general proficiency test (*Oxford Placement Test*) was administered at the outset of the study. Then, a modified version of Oxford's SILL (Strategy Inventory for Language Learning) with 15 strategy items on a 5-point Likert scale was presented to the participants by means of a voting robot system on the main page of the channel. The Cronbach's Alpha of the questionnaire was $\alpha = 0.80$. The participants answered the questions by tabs. The questionnaire was divided into two categories:

1. Cognitive strategy (14 items)
2. Meta-cognitive strategy (9 items)

An immediate vocabulary multiple-choice posttest was administered two weeks after the treatment in order to measure the participants' vocabulary gain via an e-learning program. Furthermore, a delayed vocabulary multiple-choice posttest that was equivalent to the immediate vocabulary posttest was given to the participants four weeks after the treatment to investigate the test-takers' vocabulary retention in an online environment.

3.4. Data collection and analysis procedure

Subsequent procedures were followed to attain the purpose of the current study. First, a general proficiency test was administered in order to make sure that there were no considerable differences among the participants in terms of their proficiency level. The participants' scores on the general proficiency test were summarized. In addition, the mean and the standard deviation were computed. Those who attained more than one standard deviation above or below the mean were excluded from the treatment. In the second stage, a language learning strategies questionnaire was sent to all participants in the *Telegram* channel via @vote robot systems. The test-takers answered the questions by touching the tabs. Third, an immediate and delayed vocabulary posttest in the form of multiple-choice were administered two and four weeks after the treatment, respectively, in order to measure the participants' vocabulary gain and retention in an e-learning project. Finally, the obtained data were summarized, evaluated and prepared for further statistical analysis.

Four one-way ANOVAs were run to answer Questions 1 and 2 which examined the effects of the choice of cognitive and meta-cognitive strategies on vocabulary gain and retention of Iranian EFL learners using audio podcasts plus still pictures and audio podcasts plus animated pictures. All statistical analyses were calculated by SPSS software, version 20.

4. Results

4.1. Results of the vocabulary gain and language learning strategies questionnaire

The first research question considered whether Iranian EFL learners' vocabulary gain level was significantly influenced by their choice of cognitive and meta-cognitive strategies using audio and animated podcasts in an e-learning context. To this end, participants were divided into three equal groups of high, medium and low levels of vocabulary gain according to their scores on the vocabulary gain exam. To consider the effects of vocabulary gain level on the choice of cognitive and meta-cognitive strategies, two one-way ANOVAs were run.

The first one-way ANOVA procedure was implemented to examine the effects of the choice of cognitive strategy on Iranian EFL learners' vocabulary gain level. Table 1 shows the results of descriptive and test statistics. As evidenced in Table 1, the participants who had high vocabulary gain level applying audio podcasts plus animated pictures had the highest mean (mean = 30.17), followed by the medium vocabulary gain level (mean = 27.50), and the low vocabulary gain level (mean = 24.84). In addition, the F-value is statistically significant (Sig =

.000). Therefore, the differences among the three vocabulary gain levels applying audio podcasts plus animated pictures in the choice of cognitive strategy are significant. Moreover, the assumption of homogeneity was met.

Table 1. Descriptive and test statistics for vocabulary gain levels and cognitive strategy

Cognitive Strategy	Vocabulary Retention Level	N	Mean	Std. Deviation	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
	High	30	30.17	4.720	28.40	31.93
	Mid	30	27.50	3.928	26.03	28.97
	Low	30	24.87	3.963	23.39	26.35
			F = 11.832	Sig = .000	$\omega^2 = .21$	

As Table 1 shows, 21 percent of the total variance in the dependent variable, vocabulary gain level, is accounted for by the independent variable, cognitive strategy. This means that the remaining 79 percent of the variance in the dependent variable is left unaccounted for.

To locate the differences among the three levels, a post hoc Tukey test procedure was used. The results are shown in Table 2.

Table 2. Post hoc multiple comparison of vocabulary gain levels in the choice of cognitive strategy
Tukey HSD

(I) Vocabulary Gain Levels	(J) Vocabulary Gain Levels	Mean Difference (I-J)	Sig.	95% Confidence Interval	
				Lower Bound	Upper Bound
High	Mid	2.667*	.043	.07	5.26
High	Low	5.300*	.000	2.70	7.90
Mid	Low	2.633*	.046	.04	5.23

*. The mean difference is significant at the 0.05 level.

Table 2 illustrates that all the three means differences are statistically significant. This indicates that the more cognitive strategies the learners apply, the higher the level of vocabulary gain is. Figure 1 shows the differences among the three vocabulary gain levels in the use of cognitive strategy more conspicuously.

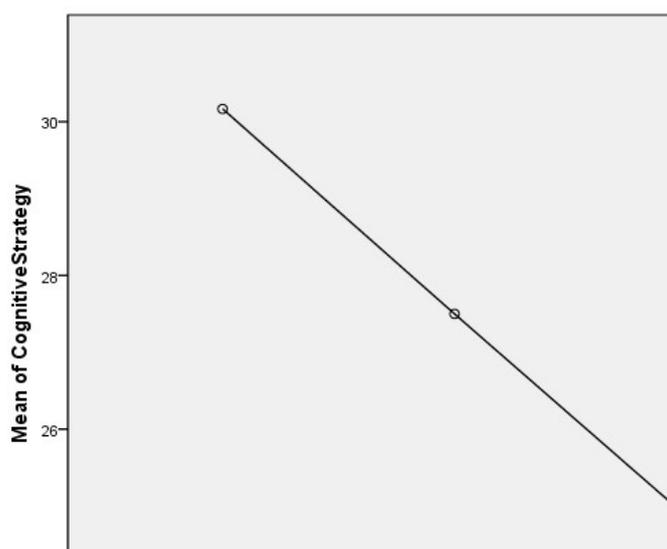


Figure 1. Vocabulary gain levels and the choice of cognitive strategy

The second ANOVA was used to investigate the effects of the choice of meta-cognitive strategy on Iranian EFL learners' vocabulary gain level. Table 3 displays the results of descriptive and test statistics. As seen in Table 3, the participants who had high vocabulary gain level applying audio podcasts plus animated pictures had the highest mean (mean = 35.00), followed by the low vocabulary gain level (mean = 33.30), and the medium vocabulary gain level (mean = 32.33). In addition, F-value was insignificant (Sig = .201). Therefore, the differences among the three vocabulary gain levels applying audio plus animated pictures in the choice of meta-cognitive strategy are not significant.

Table 3. Descriptive and test statistics for vocabulary gain levels and metacognitive strategy

Metacognitive Strategy	Vocabulary Retention Level	N	Mean	Std. Deviation	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
	High	30	35.00	4.785	33.21	36.79
	Mid	30	32.33	6.008	30.09	34.58
	Low	30	33.30	6.423	30.90	35.70
				F = 1.636	Sig = .201	

The following figure shows the results more obviously.

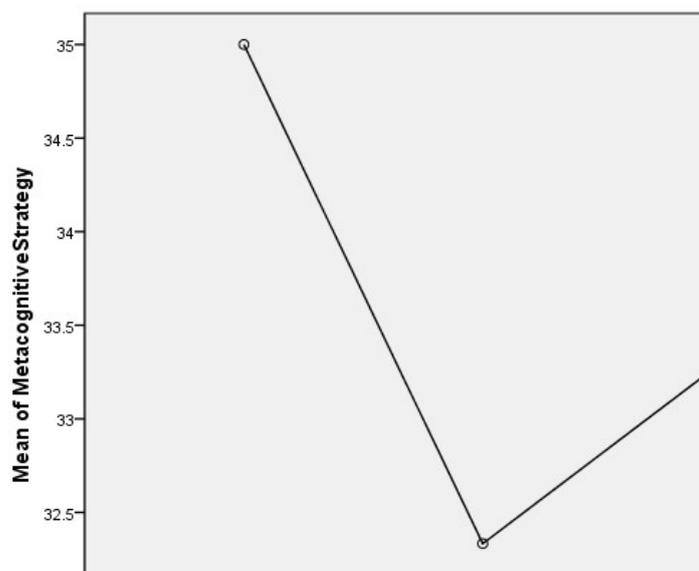


Figure 2. Vocabulary gain levels and the choice of meta-cognitive strategy

4.2. Results of the Vocabulary Retention and Language Learning Strategies Questionnaire

The second research question attempted to examine whether Iranian EFL learners' vocabulary retention level was significantly influenced by their choice of cognitive and meta-cognitive strategies using audio and animated podcasts in an e-learning context. To this end, the participants were divided into three equal groups of high, medium and low levels of vocabulary retention level according to their scores on the vocabulary retention exam. To examine the effects of vocabulary retention level on the choice of cognitive and meta-cognitive strategies, one-way ANOVA was run twice.

The first one-way ANOVA procedure was run to consider the effects of the choice of cognitive strategy on Iranian EFL learners' vocabulary retention level. Table 4 shows the results of descriptive and test statistics. As evidenced in Table 4, the participants who had high vocabulary retention level applying audio podcasts plus animated pictures had the highest mean (mean = 49.10), followed by the medium vocabulary retention level (mean = 41.30), and the low vocabulary retention level (mean = 36.23). In addition, the F-value is statistically significant (Sig = .000). Therefore, the differences among the three vocabulary retention levels applying audio podcasts plus animated pictures in the choice of cognitive strategy are significant. Moreover, the assumption of homogeneity was met.

Table 4. Descriptive and test statistics for vocabulary retention levels and cognitive strategy

Cognitive Strategy	Vocabulary Retention Level	N	Mean	Std. Deviation	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
Strategy	High	30	49.10	6.546	46.66	51.54
	Mid	30	41.30	6.844	38.74	43.86
	Low	30	36.23	3.319	34.99	37.47
		F = 37.546		Sig = .000		$\omega^2 = .49$

As Table 4 shows, 49 percent of the total variance in the dependent variable, vocabulary retention level, is accounted for by the independent variable, cognitive strategy. This means that the remaining 51 percent of the variance in the dependent variable is left unaccounted for. To locate the differences among the three levels, a post hoc Tukey test procedure was used, yielding the results seen in Table 5.

Table 5. Post hoc multiple comparison of vocabulary retention levels in the choice of cognitive strategy
Tukey HSD

(I) Vocabulary Retention Levels	(J) Vocabulary Retention Levels	Mean Difference (I-J)	Sig.	95% Confidence Interval	
				Lower Bound	Upper Bound
High	Mid	7.800*	.000	4.23	11.37
High	Low	12.867*	.000	9.30	16.43
Mid	Low	5.067*	.003	1.50	8.63

*. The mean difference is significant at the 0.05 level.

Table 5 illustrates that all the three means differences are statistically significant. This means that the more meta-cognitive strategies the learners apply, the higher the level of vocabulary retention is. Figure 3 shows the differences among the three vocabulary retention levels in the use of cognitive strategy more conspicuously.

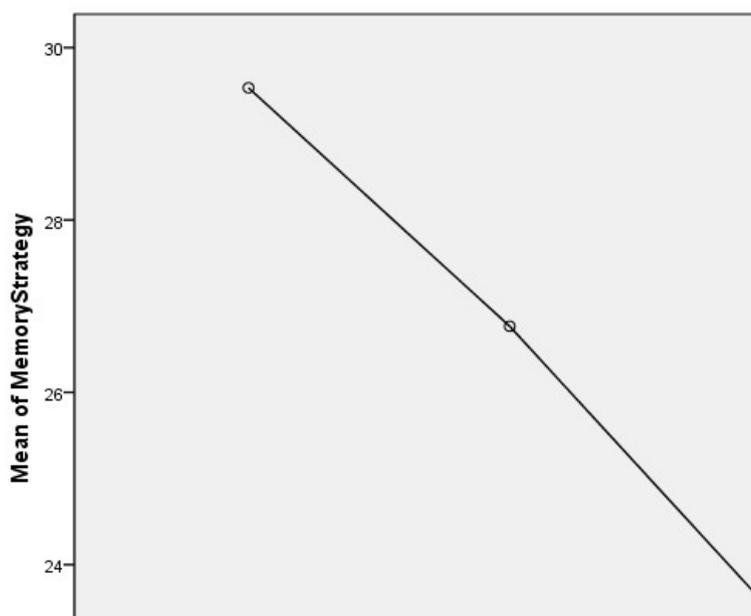


Figure 3. Vocabulary retention levels and the choice of cognitive strategy

The second ANOVA was used to investigate the effects of the choice of meta-cognitive strategy on Iranian EFL learners' vocabulary retention level. Table 6 displays the results of descriptive and test statistics. The participants who had high vocabulary retention level applying audio podcasts plus animated pictures had the highest mean (mean = 35.93), followed by the low vocabulary retention level (mean = 35.70), and the medium vocabulary retention level (mean = 35.63). In addition, F-value was insignificant (Sig = .957). Therefore, the differences among the three vocabulary retention levels applying audio plus animated pictures in the choice of meta-cognitive strategy are not significant.

Table 6. Descriptive and test statistics for vocabulary retention levels and metacognitive strategy

Metacognitive Strategy	Vocabulary Retention Level	N	Mean	Std. Deviation	95% Confidence Interval for Mean	
					Lower Bound	Upper Bound
	High	30	35.93	3.685	34.56	37.31
	Mid	30	35.63	4.359	34.01	37.26
	Low	30	35.70	4.300	34.09	37.31
			F = .044	Sig = .957		

Figure 4 shows the differences among the three vocabulary retention levels in the use of meta-cognitive strategy more obviously.

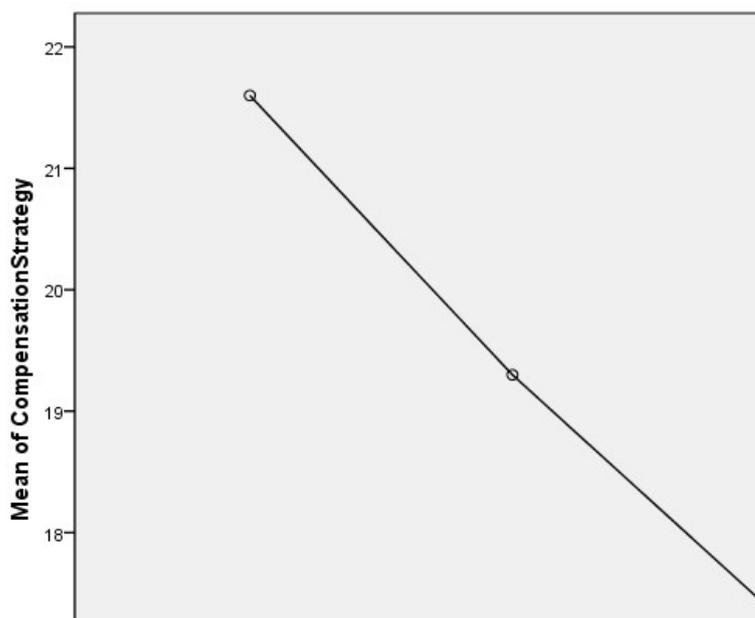


Figure 4. Vocabulary retention levels and the choice of meta-cognitive strategy

5. Discussion

The present study attempted to investigate the effects of the choice of cognitive and meta-cognitive strategies on Iranian EFL learners' vocabulary gain and retention levels in an E-learning context.

The findings of the present study were that the levels of vocabulary gain and retention were significantly affected by the choice of cognitive strategy. However, the choice of meta-cognitive strategy had no considerable influences on the level of vocabulary gain and retention. These findings are in contrast to those of Rao (2006), who reported that the students used affective strategies the most. The results of this study are different from Wang, Spencer and Xing's (2009) findings, who found that meta-cognitive strategies affected learners' improvement. Moreover, those learners who tended to express autonomy used meta-cognitive strategies in order to be more successful. The results of the present study contradict those of Zarei and Elekaei (2012), who reported that the level of motivation and attitude significantly affected students' choice of affective strategies.

However, the results of this study support those of Ashton-Hay and Brookes (2011), who reported that language learning strategies simplified language learning. In addition, the findings of the present study corroborate those of Zarei and Elekaei (2012). They found that the level of

motivation and attitude considerably affected students' choice of memory and compensation strategies.

Some factors could possibly account for these findings. One issue may be that vocabulary instruction in form of audio podcasts plus still as well as animated pictures was beneficial because podcasts provided time-saving and easy-to-use technology for learners. Moreover, the present study showed that learners could receive the information instead of seeking it. Students faced a new learning paradigm, they used their talents and abilities, their learning motivation and attitude improved and they promoted their vocabulary knowledge.

The participants' level of proficiency can be addressed as the other factor that may have brought about such findings. All the participants were at the intermediate proficiency level and they were familiar with the use of cognitive strategies but not so much with meta-cognitive strategies. Therefore, the effects of vocabulary gain and retention level in the choice of cognitive strategy were significant. However, the effects of vocabulary gain and retention level in the choice of meta-cognitive strategy were insignificant.

6. Conclusion

The findings of the present study can be beneficial to second/foreign language teaching. The results indicated that podcasting plays an important role in supporting learning and teaching process. As Shahid and Ali (2017b) believe, the combination of excitement, fun and enthusiasm in animated vocabulary podcasts helped learners understand the words without difficulty and remember them for a long time.

Podcasts are remarkable for learners especially in learning vocabulary items which is essential regarding learning a second or foreign language and learners' academic needs. The results showed that podcasts were useful to improve long-term retention of words.

Moreover, campus educational systems take more time since learners go to school as well as universities several hours on a daily basis and several days per week. Distance education was designed to allow learners to access the course materials through their mobile devices and save their time.

The demand for distance learning will continue to grow and technology will continue to help distance learners utilize new tools in order to make learning environments that prepare them for solving problems by online collaboration. The future processes offer researchers, teachers

and learners the opportunity to understand the design of *Telegram* and podcasting that users can enjoy as well as adapt with ease.

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MULTIMODAL SPACES FOR DIGITAL TRANSLANGUAGING: USING *STORYJUMPER* TO ENGAGE BI/MULTILINGUALS IN INTERACTIVE STORYTELLING

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Title	Multimodal spaces for digital translanguaging: Using Storyjumper to engage bi/multilinguals' in interactive storytelling
Type of product	Bookmaking website
Minimum Hardware Requirements	A device running iOS; Android; PC/MAC; windows 8
Platform	
Contact information	<u>Help</u> provided online 24hour through chat
Target Language	Multilingual
Target Audience	K-12 level of education, but applicable to other contexts as well
Price	Basic free online account with all the features, Four publishing price rates: Audio Book download (US\$2.99 for 16 pages + \$0.10/extra page), eBook download/print (US\$2.99 for 16 pages + \$0.10/extra page), Paperback Book (US\$12.99 for 16 pages + \$0.25/extra page), Hardcover Book (US\$24.99 for 20 pages +0.50/extra page)

1. Introduction

The need for multimodality in meaning-making and knowledge representation is critical in this contemporary time when teachers are faced with not only diversity in classrooms but also a great number of technological tools to choose from. Dealing with cultural differences and linguistic diversity requires affirming and giving people access to metalanguage of multiliteracies as a means of understanding and discussing meaning-making in diverse modalities needed for closing economic and power gaps (Gee & Hayes, 2011). According to Cowan and Kress (2017), "in the multimodal semiotic world, one fundamental issue is to develop ways to provide a satisfactory account for meanings in any mode" (p. 50). The meaning of literacy has gone beyond the ability to read and write to include a whole lot of multiplicities: including being digitally literate and being literate in more than one language, hence the need for learners to be given opportunities to create meaning and represent

knowledge in diverse modes. Alongside digital literacy, digital storytelling and translinguaging are critical tools for literacy and language development.

Digital storytelling implies creating stories with multimodal tools including text, images, audio and videos. As a literacy tool, it is instrumental in giving multilingual students, who are often minorities, the opportunity to not only share their personal narratives with their linguistic resources, but also make further connections with a piece of information presented to them during a lesson, while honing and building their literacy skills (Emert, 2014). While digital storytelling serves as a means of giving students voices (Cordi & Masturzo, 2013), it enhances students' higher order thinking skills such as critical thinking and creativity, writing skills including expository writing, narratives and report writing, and digital literacy skills (Emert, 2014; Ohler, 2005). By virtue of these skills and enhanced students' voices, storytelling could be deemed fit as a suitable means of engaging students. The process can be well supported by *Storyjumper*, an interactive story creating application. *Storyjumper* enhances the use of stories for literacy and language development with the options it gives students to create multimodal stories with texts, images and audio.

Translinguaging refers to how learners employ all their linguistic resources to create meaning. It is a practice that is used to support the academic achievement and language development of bi/multilingual students. Translinguaging practices in the classroom are one way schools acknowledge and build upon the linguistic resources that students bring to school in order to facilitate their learning. As bi/multilingual students' linguistic and experiential resources are engaged, translinguaging potentially triggers bi/multilinguals' metacognitive and higher order thinking skills that enhances writing (Velasco & Garcia, 2014; Kano, 2012). Moreover, giving students writing tasks that require them to translanguage reflect the linguistic realities outside school (Hanson, 2013; Pacheco & Miller, 2015). Benefits of translinguaging to bi/multilingual students' language and literacy development abound in the literature (e.g., Canagarajah, 2011; Kiramba, 2017; Velasco & Garcia, 2014).

Both storytelling and translinguaging practices can as well be supported with technology in the classroom to engage learners. Translinguaging with an interactive digital storytelling application (*Storyjumper*) entails that multilingual learners are creating and representing meaning in diverse modes including using more than one linguistic mode, learning by storytelling (another mode), and using a platform (*Storyjumper*) that supports use of images, text and audio modes of communication.

This review describes the features of *Storyjumper* and applies the principles of engagement in Computer-Assisted Language Learning (CALL) as a framework to evaluate it

(Egbert & Shahrokni, 2018). For learners to maximize the opportunities of language and literacy development presented to them, they must be engaged in tasks.

2. A Description of *Storyjumper*

Storyjumper is a bookmaking tool that can be used to make multimodal storybooks or topical books. The books are multimodal because the user has options to use colorful texts, rich images and props, and audio to make meaning. The application can be used to make different kinds of book such as “all about me book”, “narrative writing”, “reflective journal”, “ABCs of any topic”, “group book”, “teach a topic book”, and “diary”. Users have the options to model already made books in the repository to make theirs, choose and edit any templates in the repository that suits their topics to create their own storybooks or begin writing a book from the scratch. While other bookmaking applications such as *Storybird* and *Book Creator* can be used to make multimodal books, each of these applications have their unique features while this review focuses on *Storyjumper*. *Storyjumper* allows a teacher to create a class and add any number of students and teachers to the class, model or adapt any lesson plan from the repository to plan their lessons in a variety of subjects (including English, Social Studies, Math, Foreign Languages and Science), create templates for students to use for their book projects, create and control interactive group bookmaking, and manage and review students’ work both during the process and on completion. The teacher can create a password for students to login and join the class or add students when students have their accounts. Students have the option personalize the story or book by adding their voice and special effects (sound effects and music).

The main features of *Storyjumper* are outlined below.

1. A free basic plan that allows teachers to create any number of classes and add their students, create templates for their students to easily start off book-making, create group book-making tasks, monitor students’ progress, edit, comment and review students’ works, and maintain students’ privacy.
2. The software supports the making of multimodal books with rich text, image, props, voice, sound effects, music and any linguistic mode (translanguaging).
3. A repository of multimodal digital books comes in a variety of topics and subjects.
4. A collection of templates is available for bookmaking on a variety of topics.
5. A repository of sample lesson plans for a variety of subjects where story writing can be integrated exemplify the process of digital storytelling classroom application.
6. The software supports collaboration by allowing multiple people to edit a book at the

same time and video chat with collaborators. Students can invite audience beyond the classroom to read and comment on their books.

7. *Storyjumper* supports sharing, feedback and review of students' work from a larger audience beyond the classroom both during the creation process and at the end of it.
8. The software is easily accessible to both teachers and students with a guide for teachers on how to use *Storyjumper* for their classes and printable handouts for students to get started. Students have access to work on their stories anywhere as there is compatibility with all platforms.

3. Getting started

The *Storyjumper* website is simple, accessible, clear, and easy to navigate. On the homepage shown in Figure 1, users can create a free account as a teacher or student to get started. Once account is created, the teaching and learning process starts.

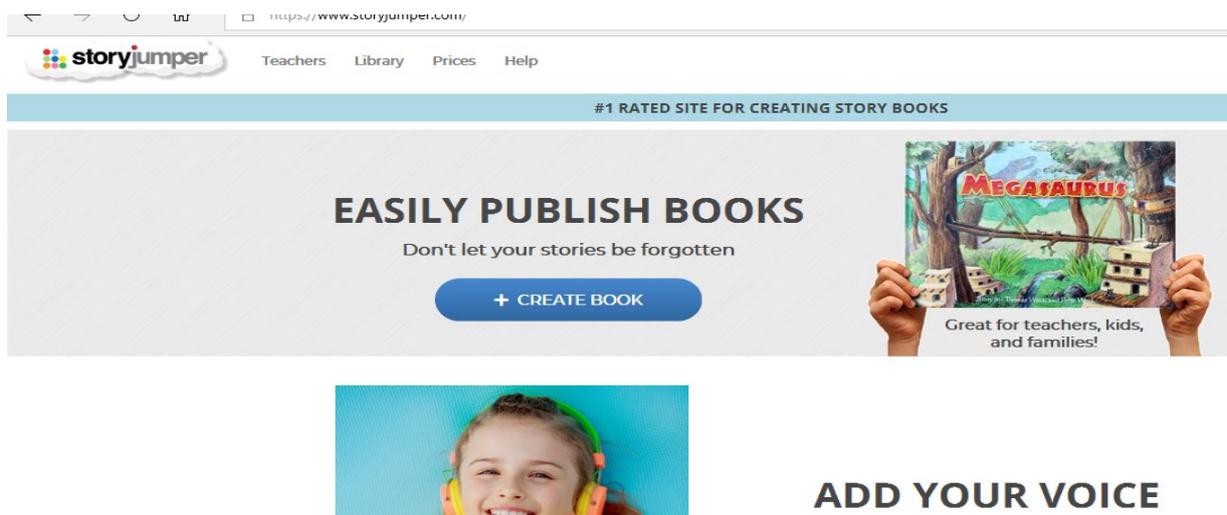


Figure 1. Homescreen

With a teacher account, the user can create or add and manage a class; create and read books while a user on a student account have access to create and save books, and read sample books.

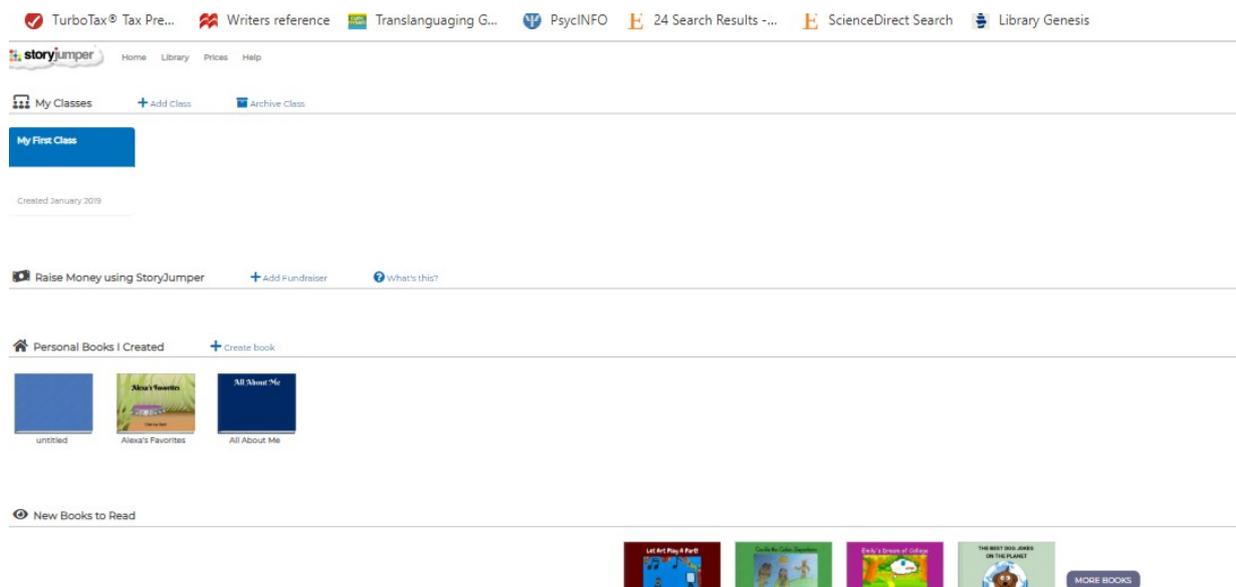


Figure 2. Editing the template

Both student and teacher user can access a repository of sample books on a variety of topics in the library.

To create a book, the user simply need to click on the “+ create book” on the home page and either select a blank template or a template of any book type in the collection of templates. Adding content to the template is straightforward. All the multimodal components that can be added to the story are clearly laid out on the left and bottom of the pages as shown in Figure 2. The user can choose different text box types, props, scenes and photos from the left. By clicking on any of the textbox types, users are presented with a menu bar at the top of the box to choose different font features including, bold, colors, size, type, italics, underline and text alignment. To add props, scenes and photos, the user has the option to either select from the available ones in the application or download from the internet using the search box. Users can also upload photos from their devices. The user can add an audio component to a book by clicking the “add voice” tab right under the pages of the book to record voice. Following voice recording, the user is presented with options at the bottom of the page to add music or sound effects as shown in Figure 3.

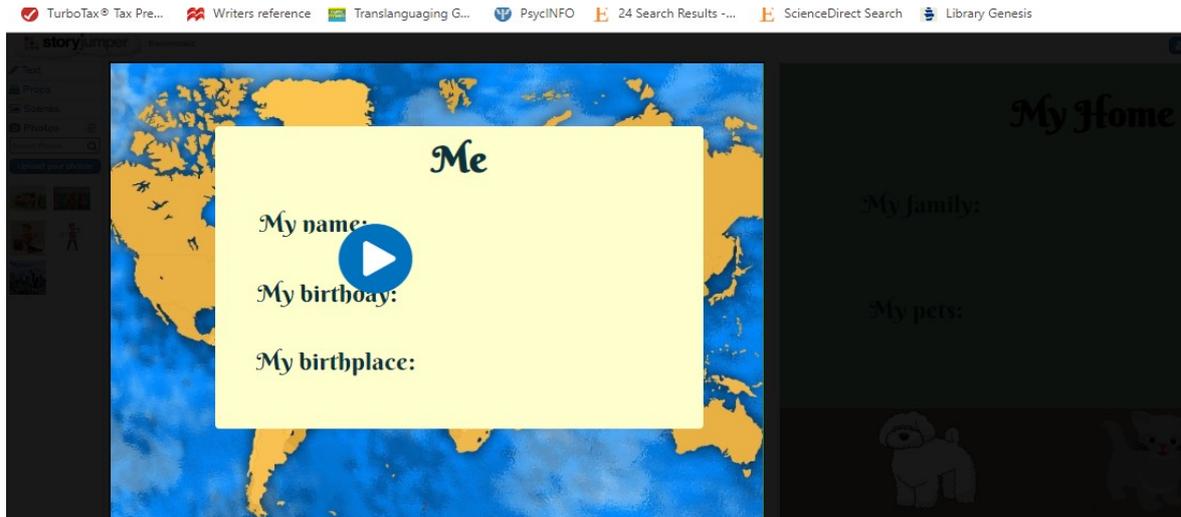
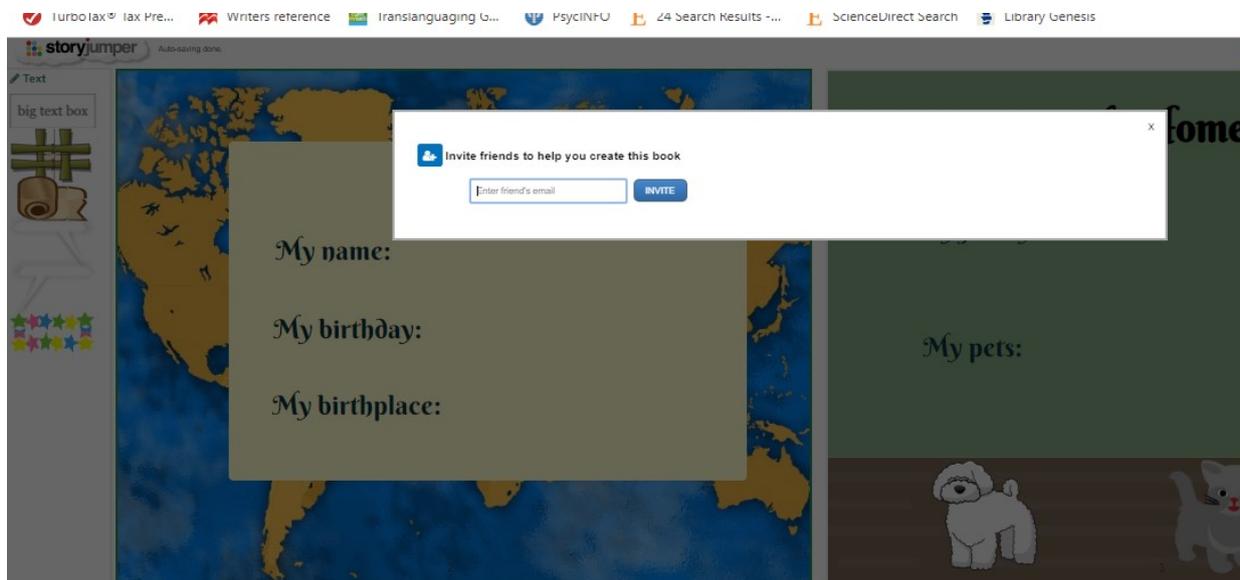


Figure 3. Adding music and sound effects

The application allows collaboration on a book project. By clicking on the “invite” tab, on the top right side of the page, as shown in Figure 2, the user can invite people to edit the same book. On the completion of a book, the user can save the book to a personal library, translate the book to another language, share the book with friends, family and community who can comment on the book, and print/publish the book, as Figure 4 shows.



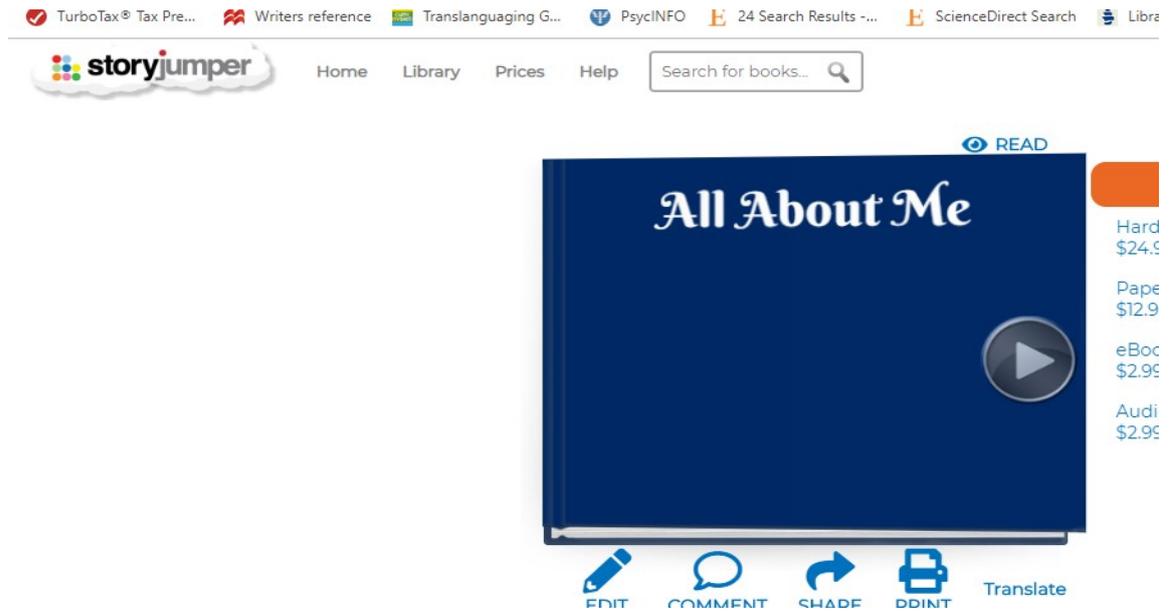


Figure 4. Things to do when the book is complete

The application enables a teacher to create and manage a class. On the class page, as shown in Figure 5, there are three tabs listed at the top. With the “to do” tab, the teacher can print login instructions for students to access the class easily; add students and plan lessons.

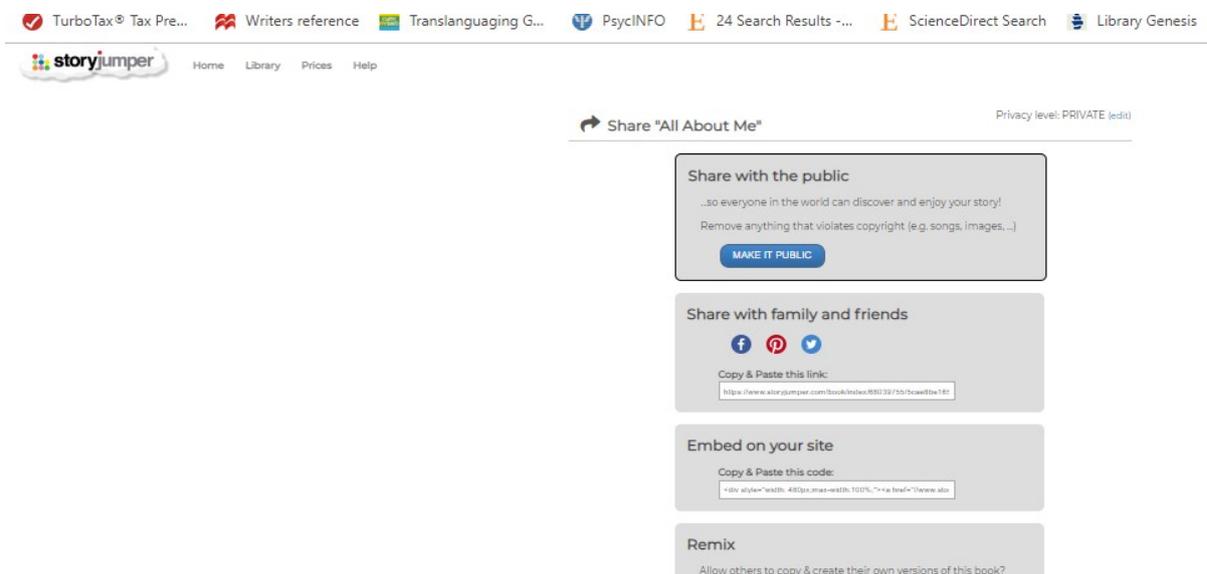
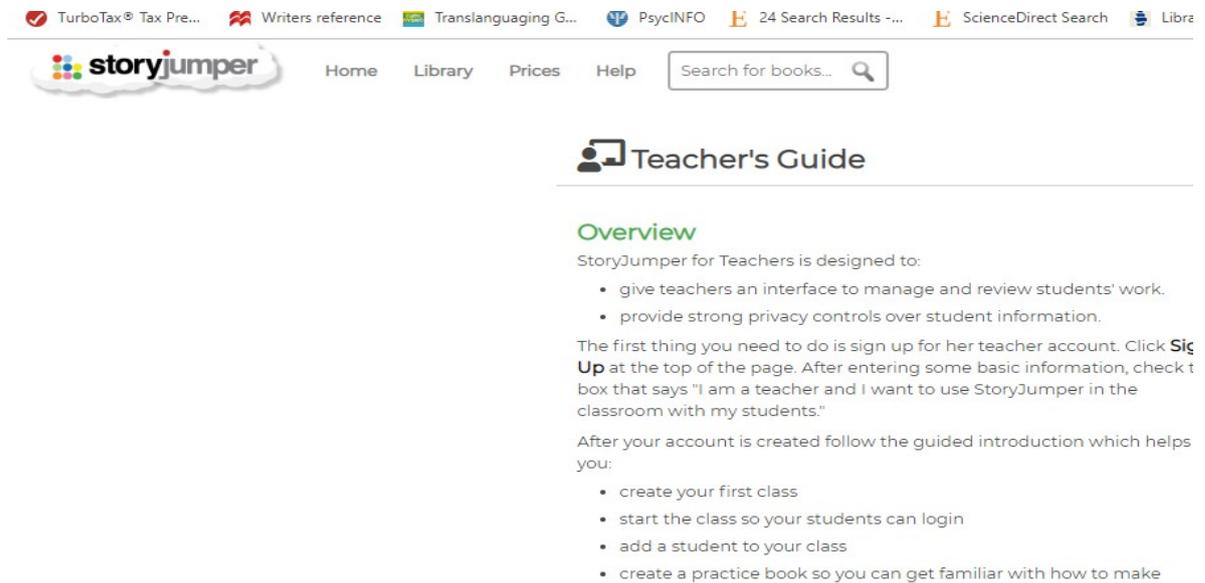


Figure 5. Class page

The “plan lesson” tab leads the teacher to a step-by-step teachers’ guide (see *Figure 6*) on how to integrate Storyjumper into the curriculum, and a repository of adaptable lesson plans on a variety of subjects/topics.



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Teacher's Guide

Overview

StoryJumper for Teachers is designed to:

- give teachers an interface to manage and review students' work.
- provide strong privacy controls over student information.

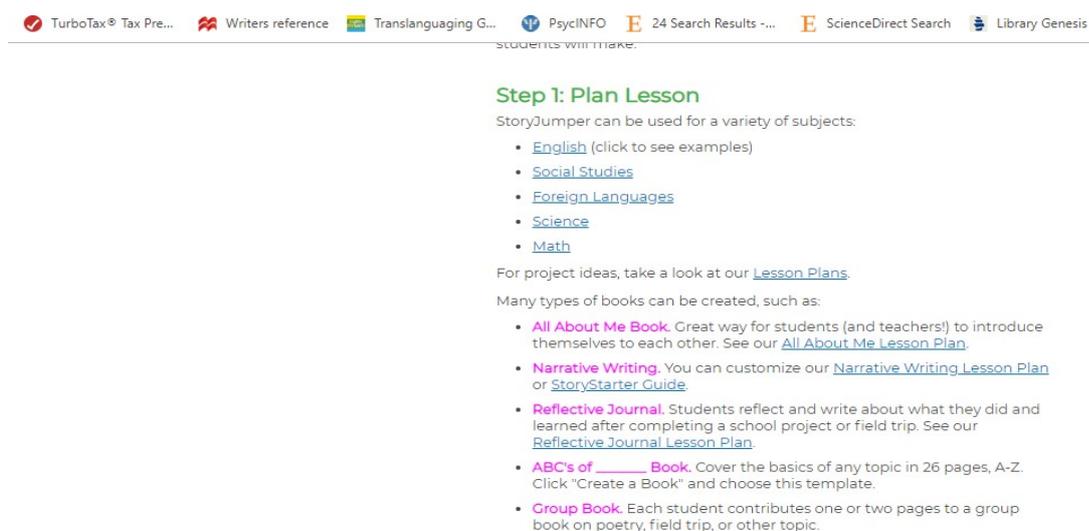
The first thing you need to do is sign up for her teacher account. Click **Sign Up** at the top of the page. After entering some basic information, check the box that says "I am a teacher and I want to use StoryJumper in the classroom with my students."

After your account is created follow the guided introduction which helps you:

- create your first class
- start the class so your students can login
- add a student to your class
- create a practice book so you can get familiar with how to make

Figure 6. Teacher’s guide

By clicking on the first step which is for planning a lesson, the user is provided with a repository of sample lesson plans on different subjects and topics (see *Figure 7*) that can be modelled to plan a lesson using *Storyjumper*.



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STUDENTS WILL MAKE.

Step 1: Plan Lesson

StoryJumper can be used for a variety of subjects:

- [English](#) (click to see examples)
- [Social Studies](#)
- [Foreign Languages](#)
- [Science](#)
- [Math](#)

For project ideas, take a look at our [Lesson Plans](#).

Many types of books can be created, such as:

- **All About Me Book.** Great way for students (and teachers!) to introduce themselves to each other. See our [All About Me Lesson Plan](#).
- **Narrative Writing.** You can customize our [Narrative Writing Lesson Plan](#) or [StoryStarter Guide](#).
- **Reflective Journal.** Students reflect and write about what they did and learned after completing a school project or field trip. See our [Reflective Journal Lesson Plan](#).
- **ABC's of _____ Book.** Cover the basics of any topic in 26 pages, A-Z. Click "Create a Book" and choose this template.
- **Group Book.** Each student contributes one or two pages to a group book on poetry, field trip, or other topic.

Figure 7. Planning lessons for different subjects

The next tab on the class page, “books”, can be used to assign book projects to students. The teacher has the option to create a book template for students to use for a book project, assign group book projects to students for collaboration, and create individual book projects. These are shown in Figure 8.

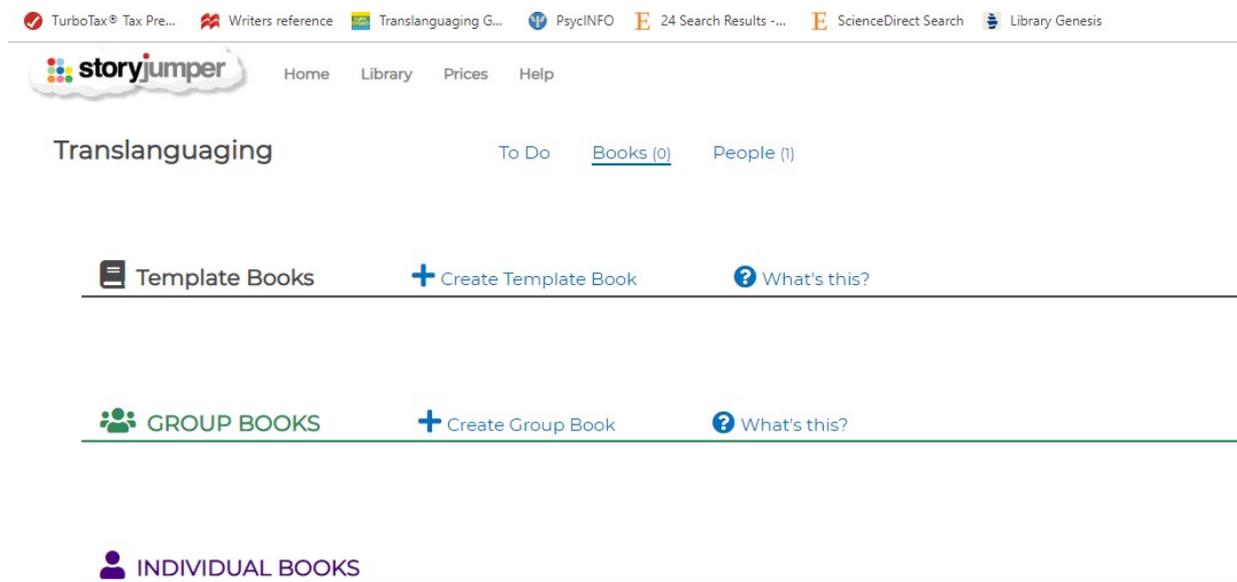


Figure 8. Assigning book projects

4. Evaluation

The diversity of cultures and languages in classroom settings necessitates giving students opportunities to not only access information and meaning in multimodal ways, but also to create meaning in multimodal ways. Moreover, a comprehensive view of literacy includes proficiency development in technological skills as much as language skills. For learners to maximize the opportunities given to them with multimodality, the classroom activities or tasks have to be engaging. Engagement happens when learners are deeply absorbed in and motivated to do classroom activities (Egbert, 2007; 2009). According to Egbert and Shahrokni (2018), there are six principles that underline task engagement including:

Authenticity: A task is authentic when learners perceive that the knowledge gained from it will be relevant to them beyond the four walls of the classroom. When students feel that they can apply gained knowledge in their real world, the task is authentic.

Interest: A task is interesting when it is connected to the lives and experiences of the learners.

Social Interaction: Social interaction is a critical principle of both language learning and engagement. To engage learners in tasks, there should be opportunities for two-way

interactions, conversations and collaborations with their peers, teachers and even audience beyond the classroom.

Challenge and Skill Balance: For a task to engage learners, its difficulty has to be commensurate with students' skills for them to complete it. While a too difficult task could stress and put off students from continuing it, a too simple task could bore them. A balance of challenge and skill is needed to make students stay focused on tasks.

Autonomy: For a task to engage learners, there has to be a room for them to take initiative and responsibility rather than requiring them to always follow some instructions, guidelines and schedule outline by the teacher.

Feedback: Because students have varying skills and work at different paces, they need to be given a good amount of time to complete task and just-in-time feedback to facilitate language learning.

The affordances of *Storyjumper* support learner engagement. I will draw from these mentioned principles as a framework to evaluate *Storyjumper*.

Authenticity: Using *Storyjumper* allows students to use skills and gain knowledge that will be useful to them in their real life. With *Storyjumper*, students are able to share their stories and ideas, and write about different topics in multimodal ways including choosing to write or speak with any language or all the languages they know (translanguaging); collaborating to work on a book, and sharing their works with any audience. These are skills that students need and use in real life contexts. The potential of the software to support these activities and skills makes it engaging. Using *Storyjumper* does not only help students to exploit their skills, but also sharpen and build on their life skills.

Interest: *Storyjumper* has affordances that allow students to make books of different topics that interest them. There are sample books on different topics in the library for students to model anyone that book is connected to their experiences, and templates on different topics that are connected to possible experiences of students that can interest them. Beyond that, the blank template makes it open for students to design books according to their interests. The editing tools of *Storyjumper* allow students to choose any text format, photos, props and scenes that they connect with. Students have the options to write in any language that is connected to their lived experiences. This is where translanguaging plays a role. They can choose to write in one language and add their voice in a different language or write in one language on a page and in a different language on another page. When the books are completely made, they can also be translated into any language of choice. However, this translating function comes only at the end which may not be known to users, indicating a weakness in the design of the application. As

giving students, especially bilinguals the opportunity to write in any language of their choice can engage them in learning (Canagarajah, 2011), the translating feature would have been more engaging to students if it were available earlier when they are in the process of adding content to a book. Students have the options to write individually or in groups and share their work with any audience of their choice depending on their interests. In all, knowing that we have a diverse student body with different interests and experiences and different ways of processing or presenting information, the options *Storyjumper* provides for multimodality makes it engaging.

Social Interaction: Social interaction is a key principle of both language learning and engagement that has become unavoidable in the classrooms of today (Egbert & Shahrokni, 2018). Learners are engaged when they are given opportunities for social interaction. *Storyjumper* supports social interaction in two major ways. The first is that students can share ideas and collaborate on a book project by inviting their peers and teachers. A teacher can also create group projects for students to collaborate on. The second is that students can share their completely made books with audience beyond the classroom who can further comment on their books and could give them ideas to add to their books. They can also video-chat with their collaborators and audience. By these means, students are engaged in two-way interactions and collaboration with not only their peers and teachers, but also their community.

Challenge and Skill Balance: The design of *Storyjumper* is such that allows the teacher to challenge the students and yet ensure that the difficulty levels of the tasks are commensurate with the skill levels of individual students. In the first place, creating a storybook in itself is a good challenge. While there are ready-made templates that can scaffold bookmaking for students who may not yet be able to make a book from the scratch, the application allows the teacher to create book templates of different levels for students to start their book making. The teacher can also choose to ask students to make books from the scratch with a blank template. Moreover, slower students have more time to continue working on their books at home. These options that are embedded in the application make challenge and skill balance achievable and easy to engage students.

Autonomy: *Storyjumper* provide learners with opportunities to not only take initiative, but also to take responsibility for their learning. With *Storyjumper*, students can create books independently. Be it storybooks or topical books, creating a book allows learners to hone their skills, exercise some responsibility and create something. By so doing, they are engaged in the task and the learning opportunities of using *Storyjumper* are maximized.

Feedback: *Storyjumper* has potentials for giving learners on-time feedback which is important for engagement and maximal learning. The teacher can monitor and provide students with feedback during the bookmaking process and upon completion of the book by either editing students' work or commenting on their books. Beside the teacher's feedback, there is the possibility of peer review where students can comment on their peers' books. Beyond the classroom, students can get more feedback on their books from external audience who they share their books with.

5. Conclusion

Storyjumper as a tool that supports pedagogies aligns with the dynamics of today's classrooms in two major ways. On one hand, in the face of cultural and language diversities, students need to be given opportunities to create meaning in multimodal ways including the use of stories, the combination of text, images and audio, and the choice of translanguaging. On the other hand, integrating technology in ways that support learner- engagement is critical to achieve literacy development, especially digital literacy, and language development. Using *Storyjumper* can spark and build higher-order thinking skills. It supports building bi/multilinguals' voices as writers and provides ownership as students are not just consumers of technology, but also, producers of technology (Muhtarisi & Ziemke, 2015). Students learn even more when they are provided with diverse opportunities to leverage on technology to work and create knowledge and contribute to the world. According to Egbert and Sharohkni (2018), classroom activities/tasks must be engaging for learners to use the opportunities provided for them. By virtue of the potentials inherent in *Storyjumper* to engage students, learners can maximize the mentioned opportunities for literacy and language development provided for them with *Storyjumper*.

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Teaching English with Technology

April-2020