Book Creator as a tool of formative assessment in the TEFL classroom: Emergency remote teaching during wartime

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This paper explores the innovative use of Book Creator as an emergency formative assessment tool in a higher education context. Book Creator, a platform for creating digital books, portfolios, and interactive multimedia projects, was adapted by the authors to urgently maintain students' progress and conduct formative assessment in the TEFL course during emergency remote teaching. The study involved 32 third-year students majoring in Secondary Education and four university teachers who specialised in training pre-service teachers. The authors employed a mixed-methods approach, combining quantitative analysis of student performance data with qualitative analysis of teacher reflections to evaluate the effectiveness of Book Creator as an emergency formative assessment tool within the TEFL course. Student performance data encompassed average scores for the generated TEFL books and students' final exam scores, which were scrutinised using descriptive statistics, Krippendorff's alpha to ascertain interrater reliability, and Pearson correlation analysis to establish a relationship between TEFL book scores and final exam scores. The end-of-term outcomes in the TEFL course revealed a substantial correlation between students' proficiency in creating books and their academic performance. The study concludes that Book Creator is a potent formative assessment tool that fosters students' progress and autonomy in constructing pedagogical content knowledge in an emergency.

Keywords: Book creator, emergency remote teaching, formative assessment, a university TEFL course, content-knowledge assessment.

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Introduction

The year 2022 will be recorded in the history of Ukrainian education as the time that plunged the whole system into an abyss of demotivation, organisational turmoil and existential threat. The toll of the war on the education system is unprecedented: 2,532 educational institutions, including 45 universities, have been destroyed, and up to 30% of the staff and students from most universities have been internally displaced or become refugees (International Department, 2022). Despite being aware of global experience in fighting the education destruction caused by emergencies (Dicum, 2008; UNESCO, 2020), the educationalists were not ready to offer a prompt and constructive response to the challenges and ensure the appropriate continuity of learning. In emergency circumstances, the shift to Emergency Remote Teaching (ERT), a hybrid communicative event different from both virtual and traditional learning, necessitated a rapid adaptation of educational practices, particularly in assessment methods (Algouzi & Hazaea, 2023). Technology emerged as a crucial enabler of formative assessment (FA) during these unprecedented times (Hussein, 2020). The digital landscape not only facilitated continuous learning but also opened new avenues for implementing FA strategies (Bawane & Sharma, 2020; Ireland, 2016). Various digital tools and platforms became instrumental in maintaining the feedback loop essential for effective FA, allowing educators to monitor student progress, provide timely feedback, and adjust instruction in real time despite physical distancing.

Among these technological solutions, digital content creation platforms gained prominence for their versatility in supporting FA practices. One such platform, Book Creator, exemplifies how technology can be leveraged to serve the needs of FA during ERT. Its interactive features allowed students to demonstrate their understanding through multimedia projects while teachers could provide pedagogical continuity and enhance traditional FA methods. As this study explores the implementation of FA in the TEFL course, the role of technology-mediated assessment strategies became particularly relevant in the face of unprecedented challenges. However, compared to remote teaching during the COVID-19 pandemic, online educational activity during the wartime period was meaningfully different. In terms of technological literacy, teachers and students were better prepared than during the pandemic; in terms of psychological and organisational management, the situation was critically challenging: the stakeholders appeared so frustrated and disoriented that there was

a two-week pause in the educational process. The most crucial issue was student attendance, which depended on power cuts, air raids or connection instability.

Drawing from international experiences and research on FA in emergency contexts, several key strategies are worth mentioning. For instance, Bozkurt and Sharma (2020) emphasized the importance of flexibility and empathy in assessment practices during crisis-driven remote teaching. Similarly, Huang et al. (2020), in their UNESCO report on the educational response to COVID-19, highlighted the role of technology-enhanced FA in maintaining educational continuity. Studies like those by Tartavulea et al. (2020) and Guangul et al. (2020) have documented various approaches to online FA during the pandemic, ranging from digital quizzes to project-based assessments. These international experiences informed our approach to FA in the context of ERT. However, scarce research, to our knowledge, has offered a comprehensive examination of the FA of content knowledge of university students in emergency settings. Therefore, this paper aims to validate the efficacy of employing a free version of Book Creator (BC), a platform developed by Dan Amos in 2011 to help his dyslexic kid read and write. The tool, initially designed for creating ebooks, portfolios, and interactive multimedia projects, was adapted by the authors for the needs of FA with the goal of examining whether BC can considerably boost students' pedagogical content knowledge, motivation and learning outcomes.

Literature review

Content knowledge in foreign language teaching

To create optimal teaching and learning environments, teachers must possess pedagogical knowledge, which was first conceptualised by Shulman (1987). This general pedagogical knowledge includes cross-curricular strategies of classroom management and pedagogical content knowledge. The latter integrates content knowledge (CK) of a specific subject with the pedagogical knowledge needed to teach that subject effectively. Shulman (1987) defines pedagogical CK as "that special amalgam of content and pedagogy" (ibid., p. 8), suggesting that it is the central knowledge category. Pedagogical CK implies a transformation of subject-matter knowledge to use it effectively and flexibly in the interaction between teachers and learners in the classroom (Shulman, 1987), while CK, or knowledge of the subject matter, is "at the heart of [teacher] professional competence" (Kleickmann et al., 2013, p. 91). Studies have shown that teachers' CK significantly impacts the instructional practice of teachers and

their students' achievement gains (Kleickmann et al., 2013). However, the research on teachers' professional knowledge for teaching English as a foreign language (TEFL) is quite limited compared to teaching mathematics, for instance (Evens et al., 2016; König et al., 2016).

TEFL requires specific subject matter knowledge, where language is both the medium of instruction and a tool of communication (Borg, 2006). This underscores the importance of teachers possessing both a strong command of a foreign language and knowledge of specific teaching methods and instructional strategies. As such, defining how to assess teacher knowledge as a result of initial teacher education has become crucial in addressing the issue of CK in a foreign language teaching methodology (König et al., 2016). König (2016) and colleagues explored the relationship between teacher education programs, learning opportunities, and the professional knowledge acquired in a specific German teacher education context. The three content dimensions proposed in their test design matrix: (a) knowledge of curriculum, (b) teaching strategies and representations, and (c) knowledge of students, are also relevant to other educational contexts, including ERT.

Knowledge of the curriculum is a must for teachers to enable their achievement of instructional goals in each specific setting (König et al., 2016). Essential definitions, concepts, and purposes included in the curricula should be well internalised by trainee teachers. Additionally, they should always be able to transform the curriculum-based CK, e.g., aligning it with the CEFR (Council of Europe, 2001). Knowledge of *teaching strategies and representations* suggests that the trainee teachers possess teaching "know-how", allowing them to effectively present, explain, and practice the taught language in various classroom activities. The third component, *knowledge of students,* which implies the teacher's ability to follow and analyse learners' progress, is implemented in the post-theoretical part of the course, initially during the teaching practicum and later on in the professional experience. The conclusion that König et al. arrived at is that the acquisition of pedagogical CK and CK depends on the priorities laid down in the teacher training programmes and curricula. What is more, further theoretical and empirical research is needed to understand better teacher knowledge in the domain of TEFL. This idea resonates with the findings of other researchers, e.g., Akbari & Tajik (2009), who state that in TEFL, "finding an interpretative framework that can explain the nature of teaching knowledge is

the first step towards achieving more reliable and valid methods for recruitment, preparation and certification of prospective teachers" (p. 68).

Recently, concerns have increasingly been raised over the necessity to empower trainee teachers to deal specifically with the educational challenges of the 21st century. The need for such skills as problem-solving, collaboration, communication, and creativity might re-profile the teacher knowledge base (Nusche, 2013). The development of Technological Pedagogical Content Knowledge has become another essential addition to previously researched pedagogical CK and CK (Bostancıoğlu & Handley, 2018; Drajati et al., 2018; Kasperski et al., 2023). Turgut (2017), for instance, provided evidence of effective technological pedagogical CK integration in the TEFL methodology courses. In the Ukrainian context, teacher trainees, who are themselves involved in online learning, might come to grips with this knowledge tacitly through observational apprenticeship.

Formative Assessment: Major features and impact on student learning

Since Black and Wiliam (1998) introduced the idea of FA in their landmark paper, "it has become obvious that assessment can be a powerful catalyst for learning" (Earl, 2013, p.2). The most significant features of FA, summarised by Cizeck (2010), include: (a) responsibility of students for their own learning, awareness of their current knowledge/skills and mapping the necessary steps for reaching the target level; (b) specification of clear learning goals and plans for attaining them; (c) students' awareness of the value and applicability of the desired educational outcomes; (d) students' familiarity with specific criteria of assessing their work; (e) conscious self-monitoring of progress; (f) promotion of metacognition and reflection by students on their work; (g) and the frequent, continuous character of FA, including student peer- and self-assessment and assessment embedded within learning activities as well as emphasis on the feedback as an informed basis to improve students' performance.

FA is typically performance-based or action-oriented (Finnegan et al., 2019). It is flexible as to how student knowledge is expressed (e.g., journals, presentations, projects, graphic organisers, and checklists); more importantly, students should be able to autonomously make sense of their learning and transfer it through authentic performance – explanation, interpretation, application, or self-assessment of knowledge. This feature of FA makes it especially attractive for emergency settings. Frequent delivery of FA improves the reliability of student performance outcomes by immediately providing the teacher with the data about

bridging (or not) the gaps in students' learning identified during previous evaluations. This, as Fisher and Bandy (2019) claim, directly supports the creation of a feedback loop for students and thus makes FA an ideal approach to evaluation (Fisher & Bandy, 2019, as cited in Finnegan et al., 2019).

According to Brown (2019), FA is an inherent component of any teaching act. Listing advantages of FA for student learning, such as clarity about learning goals and opportunities to reflect on the attained progress and receiving helpful feedback, Brown (2019) regards them as part of what Hattie (2009) describes as activator strategies. "Good teaching does these things", he asserts (Brown, 2019, p. 20), underpinning his rejection of the view of FA as a traditional form of assessment and expressing doubts about the validity of FA from a psychometric perspective.

Indeed, procedurally, FA is informal as it uses such formats as essays and projects, tests and quizzes, exercises with multiple choice questions, presentations, etc. Being continuous, FA is devoid of exam anxiety and may be stimulating and encourage creativity. Moreover, FA is increasingly associated with self-regulated learning – "an active constructive process whereby learners set goals for their learning and monitor, regulate, and control their cognition, motivation, and behaviour, guided and constrained by their goals and the contextual features of the environment." (Pintrich and Zusho, 2002, p. 64). In 21st-century higher education, students should be empowered to become self-regulated learners by enhancing reflective practice in the form of journals and/or portfolios and customising a variety of tools provided by information technologies.

Before we proceed to examine the possibilities of conducting FA in the TEFL course, which combines theoretical input, practical assignments and micro-teaching and is complemented with teaching practicum and internship in secondary school, it is reasonable to address current theories and practices relating to FA in the contexts where information technologies play a key role.

Use of technology in formative assessment of content knowledge in TEFL courses

Technology is the key component of emergency remote teaching (ERT). Numerous studies present evidence of the beneficial integration of various online tools into FA, such as Google

Forms, Google Docs, E-portfolio, Kahoot, Socrative, Moodle, Mentimeter, Padlet, BookCreator, and others (Musliha & Purnawarman, 2020; Perumal & Vinothkumar, 2022; Robertson et al., 2019; Walland & Shaw, 2022). These tools are flexible, user-friendly, and accessible from any device. It is also the case that advances in IT technology have created a new digital generation of students that expect engaging methods and forms of learning and assessment, even in emergencies. Moreover, since technology is a comfort zone for students, online FA tools significantly reduce stress in emergency teaching.

The choice of FA online tools in higher education to assess CK should be targeted at meeting the prerequisites for effective FA that were summarised by Gikandi et al. (2011). The publication, in which the features of online FA validity and reliability are detailed, is especially important for our research since most of the reviewed studies are related to teacher education. In terms of validity, the significant characteristics are the authenticity of assessment activities, effective formative feedback, multidimensional perspectives, and learner support. Below are the characteristics that, in our view, are especially relevant to online FA in teacher education.

Assessment authenticity implies that FA activities should be authentic to the domain being studied, and in terms of relevance to teacher education, this context refers to realistic classroom situations and includes such skills as observation, analysis and decision-making, reflection and personal professional development (Crisp and Ward, 2008 as cited in Gikandi et al., 2011). In ERT, the provision of indirect feedback is invaluable as it encourages students to self-correct and engage in reflective inquiry. While multidimensional perspectives of online instruction enable students to utilise various technological resources, teachers should be in control of the scope and boundaries of the domain knowledge acquired by students, i.e. pedagogical CK in the current research. Finally, Gikandi et al. (2011) emphasise the critical importance of adequate learner support in online settings, specifically by attending to their technological needs, mentoring learners as they acquire domain knowledge, engaging them in meaningful reflection, etc.

When it comes to the reliability of online FA, it envisages opportunities for learners to document, monitor and store the evidence of the knowledge acquired by them. Additionally, learning progress should be ascertained by multiple forms of evidence and assessed with the help of analytical rubrics developed by teachers and also available to learners. In our view, becoming active participants in assessment is especially important for student teachers. The

choice of tools and applications for FA depends on the discipline taught and the characteristics of target learners (Turnbull et al., 2021). Among the favourite tools to assess content knowledge in higher education is an E-portfolio. According to Walland & Shaw (2022), it enables transforming the assessment stage into a space where creativity and productiveness are shown for evaluation; the content of an e-portfolio may range from evidence learning or record of group discussions to observation and annotation.

Very similar in functions and characteristics is the digital platform called Book Creator (BC). The analysis of the platform shows that BC might be used as a flexible instructional strategy conducive to students' independent learning in ERT. In addition, it boosts student engagement in learning by involving them in creating their own course books to construct knowledge and generate their own content by using various styles through typing and drawing, incorporating self-made videos, audio files, and images or selecting and uploading multimedia resources from the Internet. BC can also be customised to allow students to read and experience multimodal books crafted by others. The tool is also effective in fostering reflection and metacognition.

The BC's distinctive feature is the opportunity for learners to create and store digital libraries by applying a multimodal approach, which motivates learners' creativity. Student agency is encouraged through a task to inquire about particular domain content (within units), seek and summarize relevant sources, then document the findings in the personalised book, exemplify a practical application of the processed information and reflect on personal learning (Oktavia & Nurhayati, 2023). Teachers direct the creation of individual books by providing learners with topic-related tasks/questions. Moreover, the approach allows teachers to track student progress through each unit, effectively enacting ongoing FA.

Concluding the literature review, the authors assume that BC may be effectively used in teacher education in an emergency as an accessible instrument enabling students' guided independent work aimed at acquiring pedagogical CK in the asynchronous mode. BC facilitates continuous interaction with students and teachers through asynchronous chat, and teachers may leverage the processes and products of student work for online FA purposes. To further investigate the effectiveness of BC as an emergency FA tool, this paper presents a case study of employing a free version of BC to showcase students' progress in the TEFL course during ERT. The authors are interested in exploring BC as a platform to

promote students' engagement in independent learning, boost creativity and foster reflection. Therefore, the following research questions have been formulated:

> RQ 1: How effectively is BC used by teachers as an emergency FA tool to monitor student progress in the TEFL course?
>
> RQ 2: How well do students' scores for creating a TEFL book using BC reflect their success at the end of the course as determined by final exam results?
>
> RQ 3: What are teachers' perceptions of BC as an FA tool for students' progress in a TEFL course?

Research context

In the Ukrainian context, TEFL holds a pivotal position among the courses that build pedagogical CK and the professional competence of pre-service English teachers. In the study setting (Taras Shevchenko National University of Kyiv), a TEFL course is mandatory as part of a 14-week semester program provided in the 5th semester. It aims to present comprehensive input into teaching methodology and to develop students' professional teaching skills to become competent English language teachers in secondary schools (Osidak, 2022). The course also covers classroom management, language teaching techniques, and the selection and design of appropriate tasks and materials for teaching and assessing students. Lectures are traditionally delivered in Ukrainian. In addition, Ukrainian is typically used while discussing complex concepts and constructing knowledge in groups. However, English is used in designing lessons, presenting fragments of designed lessons and teaching activities. Moreover, students are encouraged to use resources in English (e.g., YouTube videos, research papers, experts' opinions) to build their teaching expertise. Furthermore, translation is employed to ensure terminological conformity in Ukrainian and English.

The TEFL course spans 56 hours with a weekly load of 4 contact hours. It comprises 13 topics, 26 hours of lectures, and 26 hours of seminars. Two module tests evaluate pre-service teachers' pedagogical CK. The final score is calculated by combining 60 points earned during the semester with 40 points earned during the end-of-term test. Attendance at lectures does not count towards the score. By the end of the TEFL course, students are expected to acquire

theoretical pedagogical CK both from lectures and supplementary readings. Practical skills are developed while students design activities and prepare/conduct microteaching.

The use of BC was intended to contribute to the student learning process while also functioning as a repository to document evidence of their learning throughout the study. Despite the absence of prior experience with BC among the students, they generally had a high level of technological literacy, stemming from their extensive online learning experiences in secondary school and university since 2019 (Vorotnykova, 2019; Zhenchenko et al., 2022). Students were familiar with different e-tools and platforms such as Padlet, Google Classroom, Kahoot, Flipgrid, and Canvas, which are commonly used in the Ukrainian educational context. The teacher-participants in this study were familiar with the BC's characteristics, having acquired knowledge and skills through workshops aimed at empowering them with the use of e-tools. Given BC's user-friendly interface and the minimal requirement for additional information and communication technology skills, it was anticipated that the tool's characteristics could enhance students' motivation and engagement, thereby sustaining their interest in independent learning. Consequently, the study employed BC as an FA tool within the TEFL course to achieve multiple objectives.

Methodology

Study design

This study was organised as the ERT to sustain the educational process during a period of emergency (cf. Hodges et al., 2020). In the emergency circumstances of 2022 and 2023 in Ukraine, many educational institutions that were located in the regions with frequent blackouts and limited access to electricity had to move from synchronous online/offline education to partially asynchronous education. The emergency scenario directly prompted the implementation of technology to maintain the educational process and accommodate students with learning and FA opportunities.

In our attempt to sustain the educational process, we drew on the data acquired by the studies that looked into COVID-19 pandemic emergency teaching (cf. Hodges et al., 2020; Kasperski et al., 2023) to identify techno-pedagogical characteristics associated with effective ERT. The ERT was carried out at Taras Shevchenko University of Kyiv, consisting of two cycles spanning over the winter terms in 2022 and 2023. Both cycles followed the

same ERT design (see Table 1), with minor modifications made in Cycle 2 in response to the emergency teaching conditions. The ERT included three modes: 1) synchronous lectures and seminars (infrequent in Cycle 1 due to emergencies), 2) asynchronous independent work with the BC, and 3) summative assessments at the end of the module/course if circumstances permitted.

BC was crucial in organising independent learning and implementing asynchronous FA, which aimed to ensure coherence with the curriculum, enhance students' autonomy, encourage critical thinking and metacognition, provide timely feedback, and sustain self-assessment among the students (Black & Wiliam, 2009; Osidak et al., 2020; Tsagari et al., 2018). With the help of BC, the students were asked to design their own TEFL books on 10 out of 13 topics envisaged by the TEFL course (see the task, criteria, and topics in Appendix A). Given a week to work on each topic, the students could use this span as circumstances permitted, with the ability to create multiple drafts and edits. The trainees were supplied with necessary resources in English and Ukrainian, including links to video lessons and YouTube lectures. By completing a TEFL book, students could earn up to 25 points out of the 60 max points obtained throughout the term.

Synchronous FA was carried out through online TEFL classes, where students discussed all topic-related issues under the guidance and assistance of the teacher. In addition, students also demonstrated microteaching on a specific TEFL topic (e.g., teaching grammar) or teaching activities (e.g., lead-in activities). After demonstrating their activities/microteaching, students received immediate oral feedback from the groupmates and delayed recorded or written feedback from the teacher. The course closed with an end-of-term exam that included a written test focusing on the theory and an oral interaction incorporating a discussion of appropriate classroom strategies and teaching practices. The details of the assessment implemented in ERT are shown in Table 1.

Table 1. Implementation of assessment during ERT in Cycles 1 and 2

Assessment types	Objectives	Assessment details	Points
Formative assessment (asynchronous): Designing a TEFL book	The students are expected to: • draw insights from the sources • reflect individually on the course topics; • create a TEFL book that comprises ten topics	Students can do multiple edits and drafts to their books during the whole TEFL course. *Cycle 1*: Students do not receive feedback on their progress with their books. The teacher can access students' books, observe them, and make mental notes on students' work. *Cycle 2:* Students receive feedback on their progress. The teacher gives feedback on students' work whenever necessary using installed chat in BC.	25
Formative assessment (synchronous). Cycle 1: Online teaching Cycle 2: Offline teaching	Students are expected to: • discuss and present complex concepts; • demonstrate fragments of lessons;	Students cooperate, co-teach, and give peer feedback on their groupmates' microteaching and activities. Students receive feedback from their groupmates and the teacher.	35
Summative assessment: End-of-term online test	• a written multiple-choice test; • an open-ended response • an oral discussion		40

Participants

The study investigated its research questions through the analysis of data obtained from two sets of participants across two study cycles. The first group consisted of 32 female third-year undergraduate students of the Secondary Education Department, all of whom were training to become teachers of Ukrainian and English languages and literature. Fifteen students participated in Cycle 1, and 17 participated in Cycle 2. The participants, aged 18-20, were all Ukrainian-Russian bilinguals with similar cultural and experiential backgrounds. Before this study, the students had completed several courses on the methodology of teaching Ukrainian language and literature and had participated in three internships at secondary schools. During these internships, they observed in-service teachers, helped design lesson planning, and assisted teachers during classroom instruction.

The second group comprised four university teachers (i.e., the authors of this paper), all of whom participated in both study cycles. They worked for the same department, specialising in training pre-service teachers. Three of them held PhDs in education, and their research interests were related to different TEFL fields. They all had extensive experience in delivering TEFL courses to pre-service teachers. At the time of data collection, the fourth teacher was pursuing a PhD in Applied Linguistics, with research interests in facilitating foreign language learning by using multimodality, e-tools, and technology.

Method

A mixed methods approach that allows triangulating data from different sources (Cohen et al., 2007) was used to provide an in-depth understanding of what constitutes a successful application of BC as an FA tool. By adopting this approach, we employed *quantitative methods,* such as an evaluation of the students' TEFL books and Pearson correlation analysis to determine the correlation between the score for creating a TEFL book and student success at the end of the course. These were used to collect explicit numerical evidence (Creswell, 2009) about the effectiveness of BC as an emergency FA tool in a TEFL course. A *qualitative method* employed by the authors was the teacher reflection logs. By employing this method, we aimed to obtain in-depth information about the teacher-participants' perceived acceptance and applicability of the BC as an FA tool in their work.

Data collection and data analysis

To address RQ 1, which aimed to evaluate the effectiveness of BC as an emergency FA tool for monitoring student progress in the TEFL course, the study utilised TEFL books developed by each participating student individually. Altogether, 15 TELF books were collected in Cycle 1 and 17 in Cycle 2. The quality of the TEFL books was established with a five-band analytic scale incorporating five criteria (see Appendix A). The authors of the paper developed the scale based on the goals of incorporating BC as a FA tool in a TEFL course. Unfortunately, due to frequent and lasting power outages, no training was carried out in Cycle 1 to ensure the consistency of the scoring while using the five-band scale across the teachers. This issue was resolved in Cycle 2 by training the teachers to use the analytic scale. On the other hand, the students were familiarised with the criteria before the start of the project. The scoring of the TEFL books was carried out individually by all four teacher participants, and then the scores were averaged (see Tables 2 and 3). Then, the collected

data was transferred to Excel 2013. Descriptive data analyses, including the measures of central tendency (i.e. mean and mode), were employed to interpret the findings collected through the analytic scale; Krippendorff's alpha was run to establish interrater reliability of scoring results in both of the cycles, using an online K-alpha calculator. Krippendorff's alpha was selected as it is applicable to various data types, including ordinal. Furthermore, it is particularly valuable in our research settings involving multiple raters (Marzi et al., 2024).

To establish the relationship between students' TEFL scores and their success at the end of the course (RQ 2), the participating students' final exam scores were used in Cycle 2. The participating students' final exam scores were compared with their mean scores for creating TEFL books in Cycle 2. For this purpose, Pearson correlation analysis was run to establish whether the success in creating a book aligned with the student's general progress in the TEFL course.

To collect data about the teachers' perceptions of BC as a FA tool for students' progress in a TEFL course (RQ 3), the teacher reflection logs were employed after scoring students' TEFL books in Cycle 2. Reflective logs are regarded as an effective tool for gathering insights into an individual's emotions (Cohen et al., 2007). They reveal what happens during the implementation of a programme and capture participants' perceptions of these events. The reflective log used for the purpose of this study had eight structured questions (see Appendix B) based on the classroom assessment validation framework (Giraldo, 2020). This framework addresses three key aspects: (a) the congruence between curriculum objectives and the designed tests; (b) evidence of students' academic progress usually carried out through statistical calculations and analysis; and (c) the analysis of beneficial consequences of assessment, which is viewed as improved learning. In accordance with this framework, the teacher reflective log questions were focused on three main themes: alignment with the curriculum objective, evidence of the students' independent learning, and effectiveness of BC as a FA tool. Therefore, assigning codes was established deductively, following the established themes. Initially, the reflective logs were coded by one coder who scrutinized the logs to uncover patterns and ideas grouped around key themes with other researchers checking the consistency of applying the coding scheme. Then, the received results were collated and thoroughly discussed until a complete agreement in judgements was reached. This collected data presents the participants' perspectives on the efficacy of BC in promoting independent learning and self-constructing PCK.

Results

The effectiveness of BC as an emergency FA tool in a TEFL course

RQ 1 aims to determine how effectively teachers used BC as an emergency FA tool to monitor student progress in a TEFL course. The data collected in Cycles 1 and 2 were analysed to answer this question. Table 2 shows the means representing the results of the evaluation of the students' TEFL books per each criterion in Cycle 1 (see Appendix C for more detailed results). The maximum number of points earned for each criterion is 5. The mean value represents the average of the scores awarded by the four teachers on each criterion.

Table 2. The evaluation of the students' TEFL books on each criterion in Cycle 1

Student	Task completion	Content relevance	Examples and tasks	Multi-modality	Reflection and self-assessment	TEFL book score 25 max
1	1	0.75	0.75	2.25	0	4.75
2	1	1.5	1	0.5	0	4
3	1	2	1.5	1	0.25	5.75
4	4.5	4.75	4.25	3.75	4.25	21.5
5	2.25	2.25	1.75	1.25	0	7.5
6	4.75	4.75	2.75	4.5	0	16.75
7	3	4.75	4.5	1.25	0.25	13.75
8	2	2	1	1.75	3.25	10
9	5	4.5	4	3.5	4.5	21.5
10	5	5	5	4.75	5	24.75
11	1	1.5	1	0.5	0.25	4.25
12	4.75	4.25	2.25	2.25	3.25	16.75
13	4	2.5	3.25	2.5	0.25	12.5
14	2	2.5	3	3.25	3.25	14
15	4.75	5	3.75	4	4.75	12.25
Mean	3.07	3.2	2.65	2.5	1.95	12.67
Mode	1	4.75	1	2.25, 1.25	0, 0.25	21.5, 16.75

According to Table 2, the highest score earned by the students is 24.75 points out of 25 points, and the lowest score is only 4 points. The highest mean score (3.2 points) was for content relevance (7 students, 46.6%, received 4-5 points), and the lowest was for "reflection and self-assessment". The most often-received score for this criterion was 0, as eight students (53%) did not include reflection in the TEFL book. The mean for "task completion" was a bit over 3 points, as only seven students (around 46%) completed all topics, while four students (26.6%) included information only about one topic. Judging by the group mean for "examples and tasks" (2.65) and for "multimodality" (2.5), the students were less successful

in their ability to illustrate theory with practical tasks or apply multiple modes into one medium.

Largely, students' low scores for the criterion "examples and tasks" were both surprising and unexpected, as one of the objectives of the course is to equip students with the practical skills of a competent English teacher who can design tasks for teaching and assessing students. In addition, prior to that course, students took other methodology courses in teaching L1 and attended schools where they observed, discussed and analysed classes of in-service teachers. Therefore, it was expected that the students would be able to develop or select appropriate tasks, activities and materials to demonstrate their understanding of the theoretical context.

To assess inter-rater reliability in Cycle 1, Krippendorff's Alpha was employed. The rated data were input into the web-based statistical package K-Alpha Calculator (Marzi et al., 2024). The resulting Krippendorff's Alpha coefficient is 0.685, with the 99%-CI range, presenting a poor level of agreement. Obviously, the absence of training in applying the developed analytic scale contributed to the lack of agreement among the raters, suggesting that the raters did not apply the scale consistently. This issue was resolved in Cycle 2 by providing training in using the 5-band analytic scale before applying it for scoring the TEFL books.

In Cycle 2, the authors expected to collect stronger evidence of the efficacy of BC as an emergency FA tool, because of several factors. Firstly, the students in Cycle 2 had time to adapt to the emergency conditions, which enabled them to manage their time and resources efficiently. Secondly, despite the challenges of the 2023 term marked by severe and frequent shellings, there were fewer blackout incidents, granting students uninterrupted access to the internet and the BC platform at their convenience. Consequently, the teachers could provide timely feedback and comments on the students' progress via chat features within the platform. Thirdly, during Cycle 2, the students engaged in offline activities, fostering live communication with peers and the teachers in the classroom. This facilitated discussions and result sharing and may have positively impacted the students' overall well-being, thereby enhancing their performance. Moreover, the teachers initiated discussions with the students at the beginning of the term regarding the criteria for assessing TELF books, equipping students with a better understanding of what constitutes a quality TELF book.

Table 3 shows the means representing the evaluation of the students' TEFL books on each criterion in Cycle 2 (see Appendix D for more detailed results).

Table 3. The evaluation of the students' TEFL books on each criterion in Cycle 2

Student	Task completion	Content relevance	The examples and tasks	Multi-modality	Reflection and self- assessment	TEFL book score 25 max
1	5	4.75	5	4.25	3.5	22.5
2	5	5	5	4.25	4	23.25
3	5	5	5	5	4.75	24.75
4	3	4.25	4	3	4	18.25
5	5	4.25	4.75	4.25	4.25	22.5
6	5	4.75	4	4	2.75	20.25
7	5	5	4.75	5	3	22.75
8	5	5	4.25	4	4	22.25
9	5	5	5	4.75	4.5	24.25
10	5	5	5	5	4	24
11	5	5	5	3.75	4	22.75
12	5	4	1.25	2.5	0.25	13
13	5	5	5	4	4.25	23.25
14	5	5	4.75	4	5	23.75
15	5	5	5	5	4.5	24.5
16.	5	5	5	4	4	23
17	5	5	5	4.75	5	24.75
Mean	4.8	4.8	4.6	4.2	3.9	22.34
Mode	5	5	5	4	4	22.5, 22.75, 23.25, 24.75,

For Cycle 2, 16 students (94%) achieved high scores across all the criteria (see Table 3). The most frequent value (5 points) was for "task completion", "content relevance", and "examples and tasks". The most frequent score for "multimodality" and "self-reflection" was 4. The students demonstrated the best performance with a mean of 4.8 for "task completion" (16 out of 17 students included information about all topics of the course) and "content relevance". The lowest mean (3.9) was for "self-reflection". The total scores for the books indicate that the lowest achievement was 13 points out of 25; the highest achievement was 24.75. The other students' achievements fluctuated between 20.25 points and 24.5 points.

Krippendorff's Alpha was used to calculate inter-rater reliability in Cycle 2. The resulting Krippendorff's Alpha coefficient is 0.805, with the 99%-CI range presenting an appropriate level of agreement, indicating a reliable rating.

The relationship between students' TEFL book scores and their final exam scores.

Black and Wiliam (1998) state that substantial learning gains are the most significant manifestation of effective FA practices. Therefore, RQ 2 aimed to establish the relationship between students' scores for creating TEFL books and their performance at the end of the course (see Appendix E, presenting the results of the students' scores earned for creating TEFL books and the final exam results). The obtained data (r (15) = .633, $p < .05$) demonstrate a moderate positive correlation, suggesting that students' success in creating a book is related to their general progress in the TEFL course.

Teachers' perception of BC as an FA tool for students' progress in a TEFL course

RQ 3 looked into the teachers' perceptions of BC as a FA tool in the TEFL course. The analysis of the teachers' responses enabled validation of the efficacy of BC as a FA tool to support students' independent learning in challenging times. By analysing the teachers' responses, the study assessed their views on the practicality and implementation of BC and validated its effectiveness in fostering students' independent learning, particularly in challenging or unprecedented circumstances. This analysis provided a deeper understanding of how teachers perceived BC's role in enhancing student engagement and learning outcomes, highlighting its potential as a reliable tool for supporting education during difficult times. Additionally, the findings offered insights into the strengths and limitations of BC from the teachers' perspectives, contributing to the overall evaluation of its use as a FA tool in a TEFL context. A pre-ordinate approach was employed (Cohen et al., 2007), meaning the authors established three key themes beforehand based on the classroom assessment validation framework (see Giraldo, 2020). The collected data were presented along these three themes: (a) alignment with the curriculum objective, (b) evidence of the students' independent learning, and (c) effectiveness of the BC as a FA tool.

(a) Alignment with the curriculum objective. The teachers agreed that using BC to create a TEFL book helped the students display their knowledge of the theoretical foundations of TEFL topics and apply it in material and task design. By designing books, the students "were engaged in constructing CK in the TEFL topics that were part of the curriculum" (Teacher 1) and "built their competence in teaching English in secondary school" (Teacher 3), thereby

reflecting the curriculum objectives. Teacher 3 pointed out that created books "showcase students' proficiency and knowledge in both theoretical and practical aspects of TEFL by implementing "independent knowledge construction approach". Teachers 1, 3 and 4 also stated that the designed books had become evidence of the students' deep understanding of teaching and learning theories and effective techniques for building various language skills in their learners. Furthermore, Teacher 2 highlighted that the books can be effectively used to assist students in their "revising for the exam; and releasing tension on the eve of the exam", which further supported the alignment of creating a TEFL book with the curriculum.

(b) Evidence of the students' independent learning. The TEFL books can serve as evidence of independent learning, as all four teachers agreed that completing tasks positively correlated with a deep understanding of the subject matter and an ability to apply systematic knowledge in lesson design (Teachers 2 and 3). The transformation of content knowledge within most student-created books indicates successful knowledge construction (Teachers 1 and 3). Teachers 1, 2, and 3 also acknowledged that many students did not complete all components of the project during Cycle 1. In this light, it is difficult to decide to what extent the created TEFL books can demonstrate students' theoretical and practical understanding of the subject. In addition, Teachers 2 and 4 raised concerns about the authenticity of the knowledge presented in the designed books, exemplified by instances of direct copying without proper paraphrasing (Book of Student 13, Cycle 1).

(c) Effectiveness of the BC as a FA tool. The unanimous consensus among all four teachers is that BC proved to be a powerful tool for fostering independent learning and facilitating FA, especially in challenging times. The platform's main asset is its user-friendly interface and technical accessibility, which makes it equally attractive to students and educators. Teachers 1 and 3 strongly emphasised the platform's learner-centeredness that supports progressive education and provides a flexible framework for students to access BC at their convenience, which became a particular advantage in regions prone to frequent power cuts. In this respect, Teacher 1 stressed that "BC is able to sustain progressive learning by allowing multiple edits and additions. BC is also engaging as it offers a variety of functions that can help students demonstrate their original thinking and creative views."

In addition, Teacher 4 noted that "The BC allows for the identification of students' learning styles and creativity, as evidenced by the use of unique and artistic graphic design within the created books." Moreover, Teacher 1 highlighted the automatic saving of the input, which

became a crucial feature in areas with unreliable power, while Teacher 3 emphasized the value of multiple drafts and edits, facilitating independent knowledge construction. Overall, the platform's technical friendliness and the ability to edit and improve created content continuously are significant advantages in emergencies (Teacher 4). Another aspect acknowledged by the teachers is the diverse ways in which students could synthesize and consolidate theoretical concepts into their books using multimodality (Teachers 1 and 3). This suggests that BC aids in the construction of knowledge.

Beyond its role in independent learning, Teachers 1, 3, and 4 emphasised that BC also proved effective in supporting assessment for learning. "The students perceive the use of BC as the "role-model" technique to apply in future professional activity since pre-service teachers borrow a lot of their best teaching and assessment practices from their instructors" (Teacher 3). The platform's role in sustaining progressive learning is emphasised by its facilitation of "multiple edits and additions, promoting a process-oriented understanding of learning" (Teachers 4). Furthermore, Teacher 3 acknowledged that BC enhances planning and time management skills.

Moreover, all the teachers expressed strong intentions to employ BC to sustain students' independent learning. However, Teachers 2, 3 and 4 admitted that a higher level of guidance for students (more detailed requirements and assessment criteria) is required for the books to be more informative regarding students' performance and attitudes. In addition, Teachers 1 and 3 also admitted the limitations of the free version of the book that prevented students from co-creating MBs. Despite these limitations, Teachers 1, 2, and 3 acknowledged that BC facilitated collaborative efforts among students by providing opportunities to share progress and seek advice during online synchronous classes. While real-time collaboration was restricted, the platform did allow for peer- and self-assessment through predefined criteria and descriptors, offering a clear benchmark for quality work.

Discussion and conclusion

Gu (2021) argues that norm-referenced summative traditions fail to adequately validate the efficacy of FA. Instead, he proposes employing an argument-based validation framework, drawing upon Kane's (1992) concept of interpretive argument. This framework entails a sequential two-step process. Firstly, it involves mapping out the inferences made within FA regarding a student's abilities (interpretative argument). Secondly, it requires supporting

these inferences with reasons (validity argument) to establish their plausibility (Gu, 2021). To validate the findings of this study and underscore the effectiveness of using FA in emergency situations, we implemented a two-step validation process. The first step relied on teachers' assessment of students' TEFL books in Cycles 1 and 2, supplemented by correlation analysis between students' TEFL book scores and their final exam scores in Cycle 2 (quantitative analysis). The second step involved getting insight into teachers' perceptions (qualitative analysis) of utilizing formative assessment, specifically the BC platform, to gauge students' learning progress in a TEFL course.

The findings of the quantitative analysis in Cycle 1 show an overall underperformance and uneven student engagement in creating the TEFL books, which does not agree with Black and Wiliam (1998), who state that the most significant manifestation of effective practices of FA is substantial learning gains. Only about 47% of the students' books were evaluated with a score of 0.60 or higher, indicating low achievement against criteria such as the use of "examples and tasks", "multimodality", and "reflection and self-assessment". It is worth noting, though, that the emergency situation during the study, including frequent electricity disruptions and air raids, may have contributed to the low scores. The absence of Internet connectivity for most of the term prevented students from using all the app's features, leading to low scores for the "multimodality" elements criterion. However, in Cycle 1, the students were able to construct pedagogical CK independently, utilizing their limited access to the Internet wisely and focusing on meeting two criteria – "task completion" and "context relevance" – which demonstrated their consistency in constructing knowledge throughout the term. Nonetheless, the data suggests that the students had a better understanding of the theoretical concepts of the course than their practical application. Additionally, one of the main difficulties in Cycle 1 was that the students did not provide enough reflections on the ideas and concepts presented in the TEFL course. Furthermore, due to emergency conditions, the teacher was unable to respond to the individual emotional needs of the students nor to provide them with individual feedback on their learning progress.

The evaluation of the students' books in Cycle 2 brings persuasive evidence that BC is a powerful FA tool that promotes students' progress and autonomy in constructing pedagogical CK in an emergency. The data showed that students achieved high levels of success in constructing pedagogical CK, which is in contrast to the findings from Cycle 1. On a different note, the improved students' performance in Cycle 2 compared to Cycle 1 might

have been because the emergency had persisted for a considerable duration by the time Cycle 2 took place, allowing students to adjust to those conditions. In contrast, during Cycle 1, the emergency was still new, potentially leaving students with insufficient time to modify their learning routines. In addition, the improved performance could be attributed to individualized teacher feedback and access to a sustainable Internet connection. Furthermore, the end-of-term results in the TEFL course showed that students who completed the books had a deep understanding of the course material and were able to apply it practically (examples of students' books are available in Appendix E). The results from the Pearson test also showed a positive correlation between students' success in constructing books and their performance in the TEFL course, as indicated by the obtained data ($r(15) = .633$, $p < .05$).

The analysis of the teachers' reflective log demonstrates that using a free version of BC as a FA tool satisfies all five elements of FA as defined by Black and Wiliam (2009) that include coherence with curricular goals, promotion of student autonomy, enhancement of critical thinking skills, metacognition, timely feedback, and collaboration opportunities. However, the BC platform in Cycle 1 did not directly support timely feedback and collaborative opportunities. Despite the fact that a free version of the platform allows for individualised and timely feedback through a chat, frequent daytime power outages during Cycle 1 posed challenges for the teacher in supporting students' progress with her comments. The student collaboration aspect of co-constructing a TEFL book cannot be facilitated using the free version of BC. Collaborative opportunities were partially met during the online synchronous classes, where students discussed their progress in creating books in breakout rooms in Cycle 1 or during live sessions in Cycle 2. This was expected to enhance their understanding of the TEFL course's complex notions and allow them to borrow ideas and provide advice to their peers. During Cycle 2, students also received teacher feedback, comments and suggestions through the chat.

Furthermore, the reflection log analysis showed that integrating technology, specifically BC, into courses beyond just emergency situations is crucial for the success of both teachers and students. This finding is consistent with previous research (Algouzi & Hazaea, 2023; Hussein, 2020), emphasizing the importance of technology integration as a long-term strategy. The study also highlights the significance of teacher presence and timely feedback in shaping a successful educational experience, as supported by Black and Wiliam (2009)

and Hussein (2020). In online learning communities, teacher feedback should be an integral part of the learning process, serving as a mediator and assisting learners in developing their knowledge. Therefore, incorporating teacher feedback can enhance online learning and promote an active inquiry-based learning environment.

In addition, the findings indicated a significant correlation between students' success in creating TEFL books and their performance in the final assessment at the end of the term. Furthermore, the research results have produced a positive washback effect by encouraging the teacher participants to implement more varied, unconventional, and innovative FA tools after expressing positive perceptions of the effectiveness of BC as a tool to enhance students' progress, autonomy, and motivation. As for the learning mode (ERT) in which the study was carried out, it is worth mentioning that emergencies are typically perceived as the limitations of the study. In this study scenario, though, the emergency situation served as a prerequisite for conducting the study. Essentially, it functioned as a natural experiment rather than one conducted under controlled, artificial conditions, which means that the technology was implemented in response to emergency circumstances, with teachers striving to maintain learning opportunities and formative assessments. An emergency transition to ERT was carried out relatively smoothly, in line with Hodges et al. (2020) and Kasperski et al. (2023); the authors encountered the challenges of rapid shifting to ERT, such as difficulties in maintaining student engagement, adapting to new platforms, and supporting emotional wellbeing. However, constant danger, psychological stress, and power instability appeared beyond expectation and, consequently, significantly impacted the integrity of the experiment. The study found that live synchronous videoconferencing was the most effective means of engaging with students and providing support, as Lowenthal et al. (2021) suggest. Still, the study suggests that ERT, with the BC used as a FA tool, can be a valuable strategy for accommodating independent learning, promoting active engagement, and developing constructive content knowledge in TEFL courses during emergencies.

These findings necessitate further comprehensive research to investigate whether the students' failure to offer reflection and self-assessment is due to purposeful performance management caused by emergencies, the traditional national educational culture, and, in this case, the higher education assessment culture that does not emphasize reflection and self-assessment. In conclusion, this study sheds light on the application of BC as a FA tool in ERT contexts. The authors suggest that universities adopt more flexible and

unconventional tools to improve their formative assessment practices and ensure students' academic success.

Author disclosures

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References

Algouzi, S.I., & Hazaea, A.N. (2023). Emergency remote teaching practices: discourse analysis of EFL writing communicative event. *Humanities and Social Sciences Communications*, *10* (706). https://doi.org/10.1057/s41599-023-02195-8

Akbari, R., & Tajik, L. (2009). L2 teachers' pedagogic knowledge base: A comparison between experienced and less experienced practitioners. *Australian Journal of Teacher Education, 34*(6). https://doi.org/10.14221/ajte.2009v34n6.4

Bawane, J., & Sharma, R. (2020). *Formative assessment and the continuity of learning during emergencies and crises: NEQMAP 2020 thematic review*. UNESCO. https://unesdoc.unesco.org/ark:/48223/pf0000375239

Black, P., & Wiliam, D. (1998). *Inside the Black Box: Raising Standards through Classroom Assessment.* Phi Delta Kappa.

Black, P., & Wiliam, D. (2009). Developing the theory of formative assessment. *Educational Assessment, Evaluation and Accountability, 21*(1), 5-31. https://doi.org/10.1007/s11092-008-9068-5

Borg, S. (2006). *Teacher cognition and language education: Research and practice*. Continuum.

Bostancıoğlu, A., & Handley, Z. (2018). Developing and validating a questionnaire for evaluating the EFL 'Total PACKage': Technological pedagogical content knowledge (TPACK) for English as a foreign language (EFL). *Computer Assisted Language Learning*, *31*(2), 1-27. http://doi.org/10.1080/09588221.2017.1422524

Bozkurt, A., & Sharma, R. C. (2020). Emergency remote teaching in a time of global crisis due to CoronaVirus pandemic. *Asian Journal of Distance Education*, 15(1), 1-6.

Brown, G.T.L. (2019). Is assessment for learning really assessment? *Frontiers in Education, 4*(64), 1-7. https://doi.org/10.3389/feduc.2019.00064

Cizek, G. (2010). An introduction to formative assessment: History, characteristics, and challenges. In H. Andrade & G. Cizek (Eds.), *Handbook of formative assessment* (pp. 3-17). Routledge.

Cohen, L., Manion, L., & Morrison, K. (2007). *Research methods in education (6th ed.)*. Routledge/Taylor & Francis Group.

Council of Europe (2001). *Common European Framework of Reference for Languages: Learning, teaching, assessment (CEFR)*. Council of Europe Publishing.

Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Sage.

Crisp, V., & Ward, C. (2008). The development of a formative scenario-based computer assisted assessment tool in psychology for teachers: The PePCAA project. *Computers & Education, 50*(4), 1509–1526. https://doi.org/10.1016/j.compedu.2007.02.004

Dicum, J. (2008). Learning, war, and emergencies: A study of the learner's perspective. *Comparative Education Review*, *52*(4), 619-638.

Drajati, N. A., Tan, L., Haryati, S., Rochsantiningsih, D., & Zainnuri, H. (2018). Investigating English language teachers in developing TPACK and multimodal literacy. *Indonesian Journal of Applied Linguistics*, *7*(3), 575–582. https://doi.org/10.17509/ijal.v7i3.9806

Earl, L. M. (2013). Assessment for learning; assessment as learning: Changing practices means changing beliefs. *Assessment and Learning*, *2*, 1-5.

Evens, M., Elen, J., & Depaepe, F. (2016). Pedagogical content knowledge in the context of foreign and second language teaching: A review of the research literature. *Porta Linguarum, 26*, 187-200. https://doi.org/10.30827/Digibug.53944

Finnegan, L.A., Miller, K.M., Randolph, K.M., & Bielskus-Barone, K.D. (2019). Supporting student knowledge using formative assessment and universal design for learning expression. *The Journal of Special Education Apprenticeship*, *8*(2), 1-15. https://doi.org/10.58729/2167-3454.1092

Gikandi, J. W., Morrow, D., & Davis, N. E. (2011). Online formative assessment in higher education: A review of the literature. *Computers & Education*, *57*(4), 2333-2351. https://doi.org/10.1016/j.compedu.2011.06.004

Giraldo, F. (2020). Validity and classroom language testing: A Practical approach. *Colombian Applied linguistics Journal, 22*(2), 194-206. https://doi.org./10.14483/22487085.15998

Gu, P.Y. (2021). An argument-based framework for validating formative assessment in the classroom. *Frontiers in Education 6*, 605999. https://doi.org/10.3389/feduc.2021.605999

Guangul, F. M., Suhail, A. H., Khalit, M. I., & Khidhir, B. A. (2020). Challenges of remote assessment in higher education in the context of COVID-19: a case study of Middle East College. *Educational Assessment, Evaluation and Accountability*, 32, 519-535.

Hattie, J. (2009). *Visible Learning: A Synthesis of Meta-Analyses in Education*. Routledge. https://doi.org/10.4324/9780203887332

Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020). The difference between emergency remote teaching and online learning. *Educause Review, 27*, 1–15.

Huang, R. H., Liu, D. J., Tlili, A., Yang, J. F., & Wang, H. H. (2020). *Handbook on facilitating flexible learning during educational disruption: The Chinese experience in maintaining undisrupted learning in COVID-19 Outbreak*. Smart Learning Institute of Beijing Normal University.

Hussein, A. (2020). Learning EFL online during a pandemic: Insights into the quality of emergency online education. *International Journal of Learning, Teaching and Educational Research, 19*(11), 203-222. https://doi.org/10.26803/ijlter.19.11.12

International Department. (2022, October 5). *Impact of the war on higher education in Ukraine*. PON.org.ua. https://pon.org.ua/info-english/engnews/9820-impact-of-the-war-on-higher-education-in-ukraine.html

Ireland, S. (2016). *Education disrupted: Disaster impacts on education in the Asia Pacific region in 2015*. Save the Children.

Kane, M. T. (1992). An argument-based approach to validity. *Psychological Bulletin, 112*(3), 527–535. https://doi.org/10.1037/0033-2909.112.3.527

Kasperski, R., Porat, E., & Blau, I. (2023). Analysis of emergency remote teaching in formal education: crosschecking three contemporary techno-pedagogical frameworks. *Research in Learning Technology, 31*(2982). https://doi.org/10.25304/rlt.v31.2982

Kleickmann, T., Richter, D., Kunter, M., Elsner, J., Besser, M., Krauss, S., & Baumert, J. (2013). Teachers' content knowledge and pedagogical content knowledge: The role of structural differences in teacher education. *Journal of Teacher Education, 64*(1), 90–106. https://doi.org/10.1177/0022487112460398

König, J., Lammerding, S., Nold, G., Rohde, A., Strauß, S., & Tachtsoglou, S. (2016). Teachers' professional knowledge for teaching English as a foreign language: Assessing the outcomes of teacher education. *Journal of Teacher Education*, *67*(4), 320–337. https://doi.org/10.1177/0022487116644956

Lowenthal, P., West, R.E., Archambault, L., Borup, J., & Belt, E. S. (2021). Faculty perceptions of using synchronous video-based communication technology. *Online Learning,* 25(4), 74-103. https://doi.org/ 10.24059/olj.v25i4.2890

Marzi, G., Balzano, M., & Marchiori, D. (2024). K-Alpha calculator—Krippendorff's alpha calculator: A user-friendly tool for computing Krippendorff's alpha inter-rater reliability coefficient. *MethodsX, 2*(102545). https://doi.org/10.1016/j.mex.2023.102545

Musliha, S., & Purnawarman, P. (2020). Using mentimeter for eliciting the students' responses in formative assessment practice. *Advances in Social Science, Education and Humanities Research*, *508*, 318-325.

Nusche, D. (2013). Student assessment. In *Synergies for better learning. An international perspective on evaluation and assessment* (pp. 139-225). OECD.

Education, *31*(2), 199-218. https://doi.org/10.1080/03075070600572090

Oktavia, N.T., & Nurhayati, D.A.W. (2023). The use of Book Creator in the blended learning model in social studies learning. *SOLIDARITY*: *Journal of Social Studies*, *3*(1), 33-47. https://doi.org/10.35719/solidarity.v3i1.90

Osidak, V. (2022). *Programme description: Methodology of teaching EFL in secondary school.* Taras Shevchenko University of Kyiv.

Osidak, V., Kavytska, T., & Drobotun, V. (2020). Integrating teacher feedback and assessment to improve L2 writing. In S. Hidri, (Ed.), *Changing language assessment* (pp. 239-267). Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-030-42269-1_10.

Perumal, B.V., Vinothkumar, K . (2022). The uses of Web 2.0 technologies in teaching and learning. In N. Devaki & M. Deivam (Eds.), *Emerging Trends of ICT in Teaching and Learning* (pp. 86–95). Insta Publishing.

Pintrich, P. R., & Zusho, A. (2002). The development of academic self-regulation: The role of cognitive and motivational factors. In A. Wigfield & J. S. Eccles (Eds.), *Development of achievement motivation* (pp. 249–284). Academic Press. https://doi.org/10.1016/B978-012750053-9/50012-7

Robertson, S. N., Humphrey, S., & Steele, J. (2019). Using technology tools for formative assessments. *The Journal of Educators Online, 16*(2). https://doi.org/10.9743/JEO.2019.16.2.11.

Shulman, L. S. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review*, *57*(1), 1-22.

Tartavulea, C. V., Albu, C. N., Albu, N., Dieaconescu, R. I., & Petre, S. (2020). Online teaching practices and the effectiveness of the educational process in the wake of the COVID-19 pandemic. *Amfiteatru Economic*, 22(55), 920-936.

Tsagari, D., Vogt, K., Froelich, V., Csépes, I., Fekete, A., Green A., Hamp-Lyons, L., Sifakis, N. & Kordia, S. (2018). *Handbook of assessment for language teachers*. http://taleproject.eu/.

Turgut, Y. (2017). A comparison of pre-service, in-service and formation program for teachers' perceptions of technological pedagogical content knowledge (TPACK) in English language teaching (ELT). *Educational Research and Reviews*, *12*(22), 1091-1106. https://doi.org/10.5897/ERR2017.3311

Turnbull, D., Chugh, R., & Luck, J. (2021) Transitioning to E-learning during the COVID-19 pandemic: How have higher education institutions responded to the challenge? *Education and Information Technologies*, *26*, 6401–6419. https://doi.org/10.1007/s10639-021-10633-w

UNESCO. (2020). Managing high-stakes assessments and exams during crisis. UNESCO Covid-19 education response. *Education Sector, 4.3*. UNESDOC Digital Library. https://unesdoc.unesco.org/ark:/48223/pf0000373387

Vorotnykova, I. P. (2019). Experience of using e-textbooks and electronic educational means in school within the framework of general secondary education digitalization in Ukraine. *Information Technologies and Learning Tools*, *71*(3), 23-39. https://doi.org/10.33407/itlt.v71i3.2552

Walland, E., & Shaw, S. (2022). E-portfolios in teaching, learning and assessment: tensions in theory and praxis. *Technology, pedagogy and education*, *31*(3), 363–379. https://doi.org/10.1080/1475939X.2022.207408

Zhenchenko, M., Melnyk, O., Prykhoda, Y., & Zhenchenko, I. (2022). Ukrainian E-Learning Platforms for Schools: Evaluation of Their Functionality. *The International Review of Research in Open and Distributed Learning*, *23*(2), 136–150. https://doi.org/10.19173/irrodl.v23i2.5769

Appendix A – A TEFL book input: The task, evaluation scale, criteria and topics

1. **Task**: During the term, you are expected to design a TEFL book that will become your resource toolkit of key ideas, essential concepts, and effective teaching strategies from every topic of your TEFL course (10 topics altogether). Make sure to draw insights from the sources listed in the recommended materials. You are free to choose the language (English, Ukrainian or both) that best suits your book creation. Let your creativity and expertise shine in this valuable resource.

2. **Evaluation Scale.**

The TEFL book weighs 25 points max points max. Five points is awarded for each of the criteria: (1) Completion, (2) Content Relevance, (3) Examples and Tasks, (4) Multimodality, (5) Self-reflection and Self-Assessment.

5 points max is awarded for the criterion (1) Completion:

5 points – the completion of *10* topics

4 points – the completion of *8-7* topics

3 points – the completion of *5-6* topics

2 points – the completion of *3-4* topics

1 point – the completion of *1-2* topics

All other criteria are evaluated according to the following scale:

5 points – *Exceeds expectations*

4-3 points – *Meets expectations*

2-1 points – *Satisfactory*

0 point - *Fail*

3. **Criteria descriptors**

Completion: The TEFL book includes information about each of the 10 topics of the TEFL course, which is evidence of the independent processing of PCK.

Content Relevance: The content aligns with the learning objectives of each topic and covers key ideas, essential concepts, and effective teaching strategies from all 10 topics of the TEFL course. The ideas are organised logically, with proper headings, subheadings, and sections for each topic.

The examples and the tasks: The TEFL book includes the tasks that illustrate the practical application of the teaching strategies. These examples showcase the positive outcomes and benefits

of using the strategies in diverse educational settings. These examples prioritize student engagement, active learning, and student-centred methodologies.

Multimodality: The TEFL book incorporates visual aids, infographics, and interactive elements to enhance the learning experience.

Reflection and Self-Assessment: The book includes reflection on ideas, concepts, teaching practices, and strategies. Reflection can be part of every topic, or it can be presented as a separate page of the book.

4. Topics to be included in a TEFL book:

1) Engaging E-tools and multimedia resources in teaching English
2) Common types of language teaching tasks and activities
3) Teaching grammar to students at the secondary level
4) Teaching vocabulary to students at the secondary level
5) Teaching pronunciation to students at the secondary level
6) Teaching speaking to students at the secondary level
7) Teaching interaction to students at the secondary level
8) Teaching reception skills (reading/listening) to students at the secondary level
9) Teaching writing to students at the secondary level
10) Assessing English language achievement at secondary level.

Appendix B – Teacher reflection log questions

Reflect on the following questions. ***In your opinion ...***

(1) How did Book Creator as a formative assessment tool meet the demands of emergency time?
(2) Does creating a methodology book align with curriculum objectives?
(3) How actively were the students engaged in creating a methodology toolkit?
(4) Did creating a methodology toolkit using Book Creator contribute to constructing students' knowledge in the field?
(5) Did the created materials demonstrate students' theoretical and practical understanding of the subject?
(6) To what extent is Book Creator a useful e-tool for independent learning?
(7) How effective is Book Creator for implementing assessment for learning?
(8) Will you use Book Creator as a tool to promote assessment for learning with your students in other courses? Why yes/no?

Appendix C – Details of TEFL books' evaluation in Cycle 1 a

Students	Completion 5 max				Content relevance 5 max				The examples and tasks 5 max				Multimodality 5 max				Reflection and self-assessment 5 max			
	Teacher				Teacher				Teacher				Teacher				Teacher			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1.	1	1	1	1	1	1	1	0	1	1	1	0	1	1	3	4	0	0	0	0
2.	1	1	1	1	1	1	3	1	1	0	3	0	1	0	1	0	0	0	0	0
3.	2	2	2	3	2	2	5	0	1	1	5	0	1	0	4	0	0	0	0	0
4.	1	1	1	1	2	2	4	0	1	2	3	0	1	1	2	0	0	1	0	0
5.	4	4	5	5	4	5	5	5	2	5	5	5	2	3	5	5	3	4	5	5
6.	5	5	4	5	4	5	5	5	3	3	5	0	4	4	5	5	0	0	0	0
7.	3	3	3	3	4	5	5	5	3	5	5	5	3	2	4	0	0	1	0	0
8.	2	2	2	2	2	2	4	0	1	1	2	0	2	1	4	0	3	3	2	5
9.	5	5	5	5	4	4	5	5	2	4	5	5	2	3	4	5	4	4	5	5
10.	5	5	5	5	5	5	5	5	5	5	5	5	5	4	5	5	5	5	5	5
11.	1	1	1	1	1	1	4	0	1	1	1	0	1	1	0	0	1	0	0	0
12.	5	5	5	4	4	4	5	4	3	2	4	0	3	1	4	1	3	3	5	2
13.	4	4	4	4	4	3	3	0	4	4	5	0	3	3	4	0	0	1	0	0
14.	2	2	2	2	3	3	4	0	4	4	4	0	4	4	5	0	4	4	5	0
15.	5	4	5	5	5	5	5	5	4	3	5	3	4	2	5	5	5	4	5	5

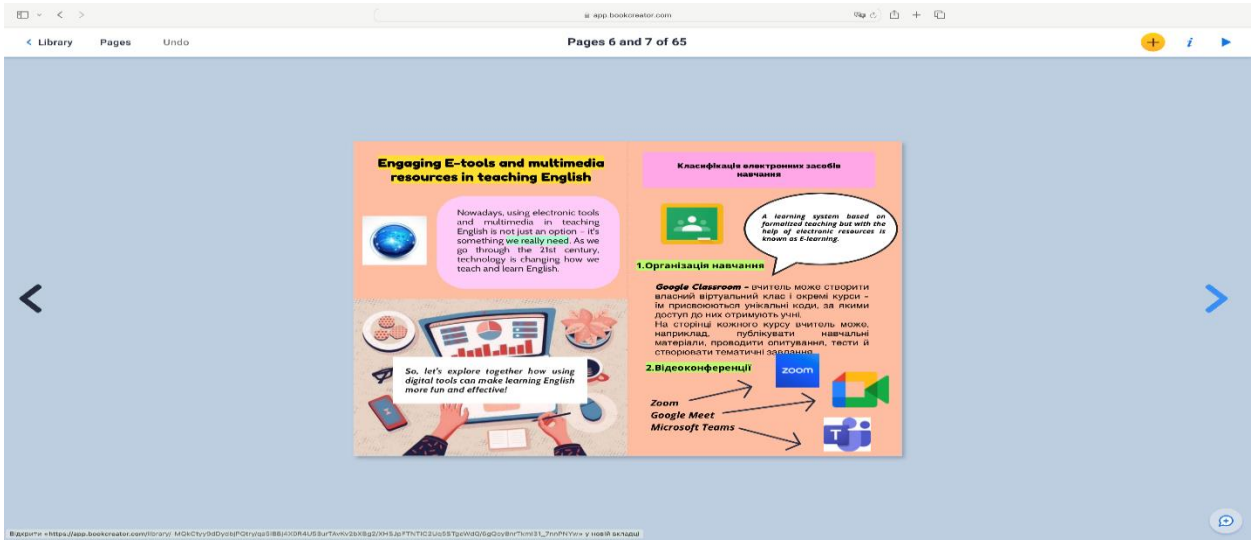
Appendix D – Details of TEFL books' evaluation in Cycle 2

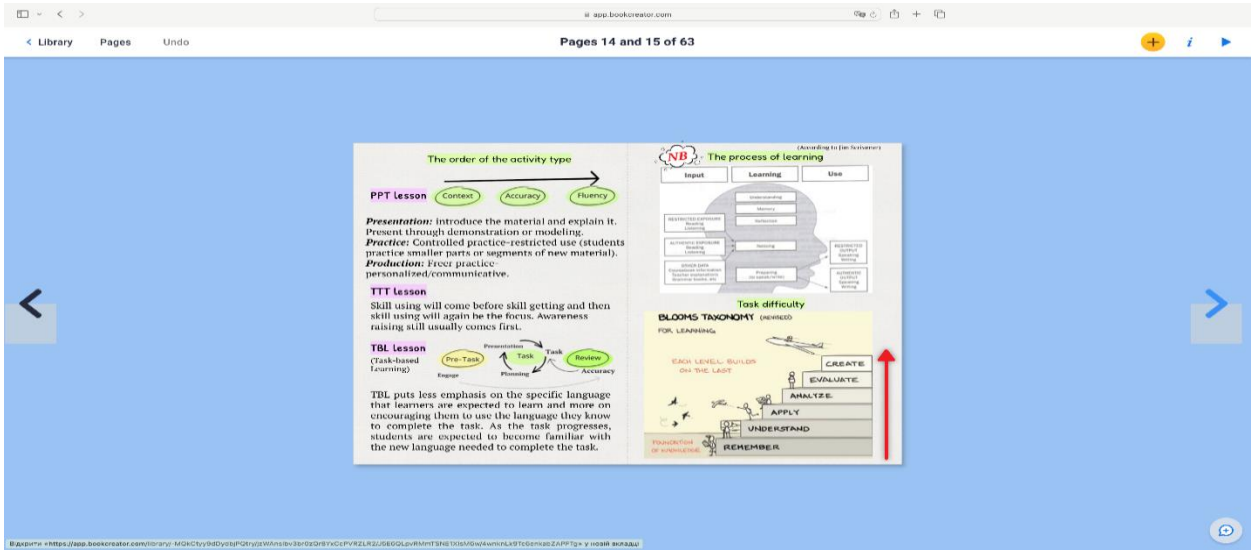
Students	Completion 5 max				Content relevance 5 max				The examples and tasks 5 max				Multimodality 5 max				Reflection and self-assessment 5 max			
	Teachers				Teachers				Teachers				Teachers				Teachers			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1	5	5	5	5	5	5	5	4	5	5	5	5	4	4	4	5	3	4	4	3
2	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4	4	4	4	4	4
3	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	5
4	3	3	3	3	5	4	4	4	4	4	4	4	3	3	3	3	4	4	4	4
5	5	5	5	5	4	5	4	4	5	5	4	5	4	5	4	4	4	5	4	4
6	5	5	5	5	4	5	5	5	4	4	4	4	4	4	4	4	3	3	3	2
7	5	5	5	5	5	5	5	5	5	4	5	5	5	5	5	5	3	4	3	2
8	5	5	5	5	5	5	5	5	5	4	4	4	4	4	4	4	4	4	4	4
9	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	5	4	4	5
10	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	4	4	4
11	5	5	5	5	5	5	5	5	5	5	5	5	3	4	4	4	4	4	4	4
12	5	5	5	5	4	4	4	4	1	2	1	1	2	3	3	2	0	1	0	0
13	5	5	5	5	5	5	5	5	5	5	5	5	4	4	4	4	4	5	4	4
14	5	5	5	5	5	5	5	5	5	5	5	4	4	4	4	4	5	5	5	5
15	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	4	5	4
16	5	5	5	5	5	5	5	5	5	5	5	5	4	4	4	4	4	4	4	4
17	5	5	5	5	5	5	5	5	5	5	5	5	4	5	5	5	5	5	5	5

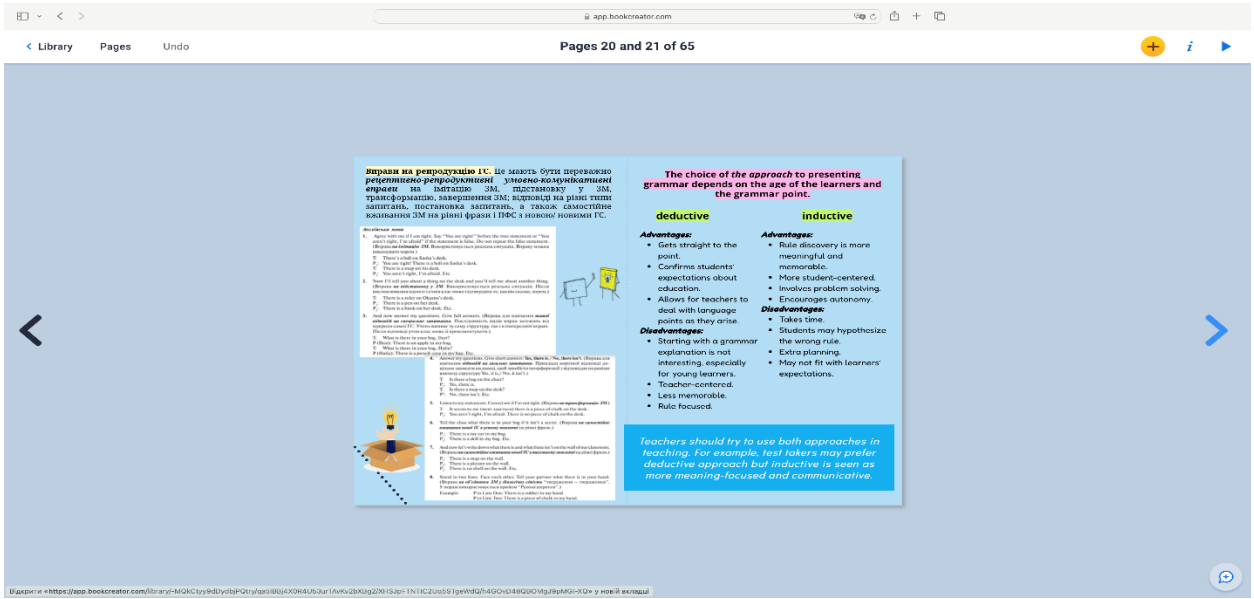
Appendix E – Students' scores for creating TEFL books against their final exam results: Cycle 2

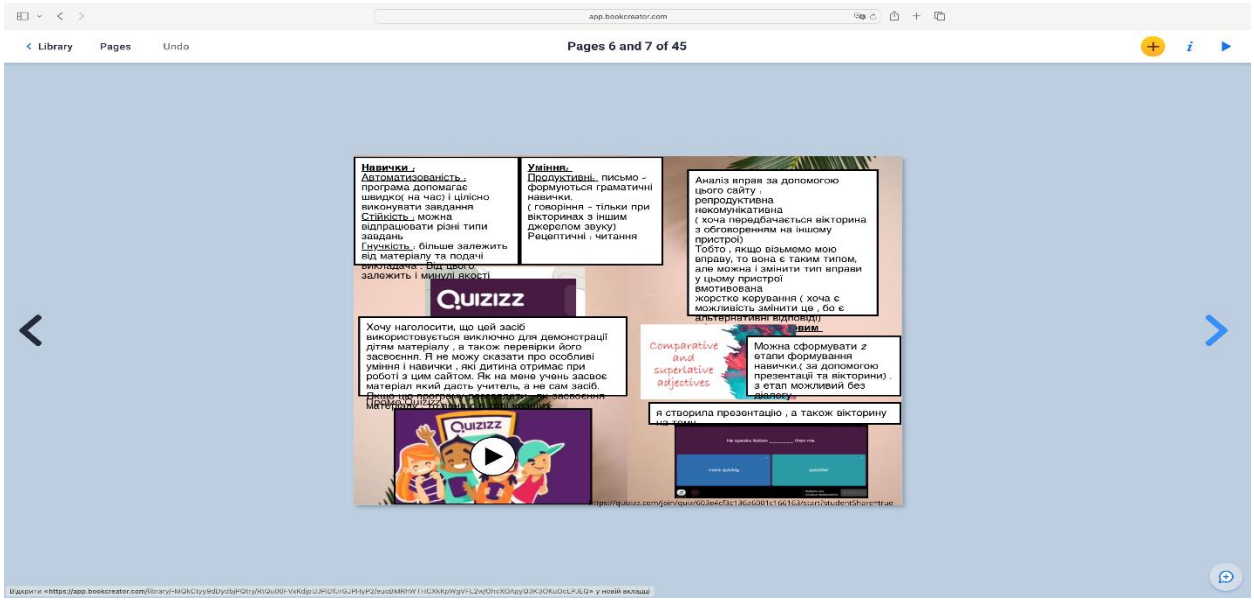
Student	Score for the TEFL book 25 points max	Final exam scores 40 points max
1	22.25	38
2	23.25	35
3	24.5	38
4	18.25	37
5	22	34
6	20.25	28
7	22.75	38
8	22.25	37
9	24	35
10	24	36
11	22.75	36
12	12.75	28
13	23.25	36
14	23.5	34
15	24.5	36
16	23	35
17	24.75	36

Appendix F – Examples of the students' TEFL books





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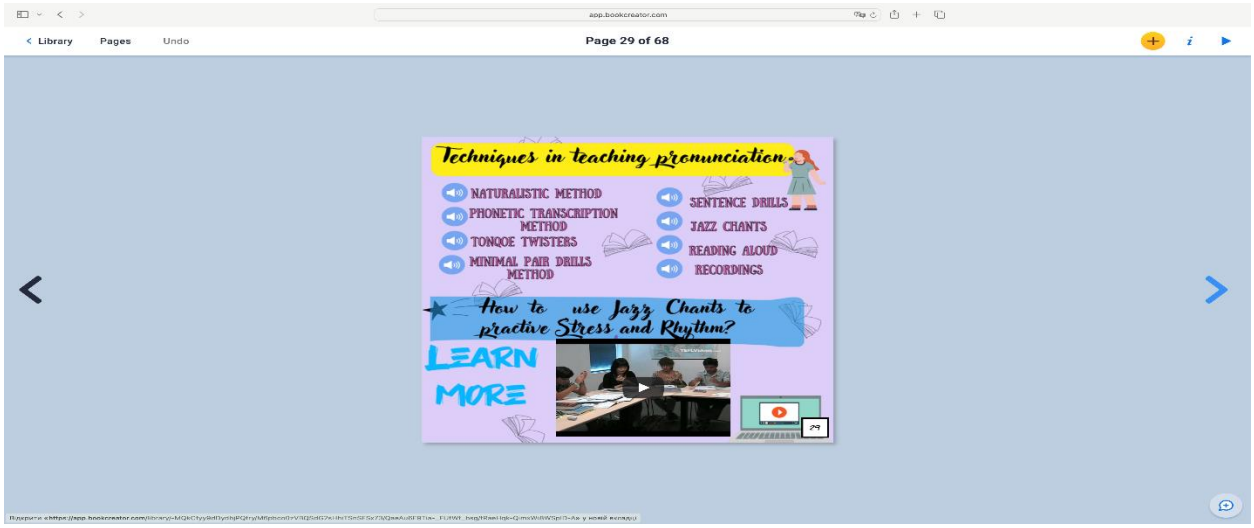
Pages 6 and 7 of 45
Навички :
Автоматизованість ,
програма допомагає
швидко(на час) і цілісно
виконувати завдання
Стійкість , можна
відпрацювати різні типи
завдань
Гнучкість , більше залежить
від матеріалу та подачі
викладача . Від цього
залежить і мимовільність якості
Уміння.
Продуктивні, письмо - формуються граматичні навички.
(говоріння - тільки при вікторинах з іншим джерелом звуку)
Рецептивні , читання
Аналіз вправ за допомогою цього сайту ,
репродуктивна
некомунікативна
(хоча передбачається вікторина з обговоренням на іншому пристрої)
Тобто , якщо візьмемо мою вправу, то вона є таким типом, але можна і змінити тип вправи у цьому пристрої
вмотивована
жорстко керування (хоча є можливість змінити це , бо є альтернативні відповіді)
Quizizz
Хочу наголосити, що цей засіб використовується виключно для демонстрації д/тям матеріалу , а також перевірки його засвоєння. Я не можу сказати про особливі уміння і навички , які дитина отримає при роботі з цим сайтом. Як на мене учень засвоє матеріал який дасть учитель, а не сам засіб.
Comparative and superlative adjectives
Можна сформувати 2 етапи формування навички.(за допомогою презентації та вікторини) . з етап можливий без діалогу
я створила презентацію , а також вікторину
Quizizz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Techniques in teaching pronunciation
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PHONETIC TRANSCRIPTION METHOD
TONGUE TWISTERS
MINIMAL PAIR DRILLS METHOD
SENTENCE DRILLS
JAZZ CHANTS
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