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Perceptions of the *Book Creator*'s role as a forefront of SEL during the COVID-19 pandemic

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ABSTRACT

This study analyzes the experience of pre-teacher students using the Book Creator (BC)–a digital tools, during emergency remote education of COVID-19. The inductive analysis of the interviews aims to answer the question: What competences of social-emotional learning (SEL) were manifested from the students' perspective as a result of the implementation of the BC while conducting emergency remote education? This inductive analysis exposed three main themes that are attributed to SEL as it is described in the literature review. The first theme–a collaborative space for peer learning such as learning with the BC. The second theme–moral dilemmas affiliated with a collaborative learning space. The third theme–continuous multi-media feedback that was made possible because of the various means of expression possible with the BC. The results of this study indicate that prudent use of technology can aid in teaching processes, teaching and evaluating students experiencing emergency-remote-education as part of their individual and group experience of learning skills that are relevant for SEL.

Keywords: Book Creator, collaborative learning, emergency remote education, ethics in education, humanistic assessment, SEL, teacher training

INTRODUCTION

The COVID-19 pandemic changed the work world and created new challenges for professionals in various fields in our society (Bozkurt et al., 2020; Corcuera & Alvarez, 2022; Finlay et al., 2022). The teaching profession was no exception. Teachers and students were forced to conform gradually to a digital educational platform–a challenge for all users (Li & Yu, 2022). Lecturers on every level were required to meet new expectations while entering lockdown situations (Corcuera & Alvarez, 2022; Schmidt-Crawford et al., 2021) and to provide solutions for distant learning in satiation of emergency remote education (Bozkurt et al., 2020), while college students stayed at home, following strict quarantine regulations (Vlachopoulos, 2020). Throughout emergency remote education and lockdown periods, lecturers were required to provide solutions for two issues: the first was technological. Attention was focused mainly on coping with technology and the problems that ensued while using it; for example, unstable internet connections, bandwidth, lack of equipment, inability to rely on communication between students and lecturers and between students and students, slow operation of learning platforms, etc. (Liu et al., 2021; Wang et al., 2022). The second was pedagogy. The lecturers were compelled to combine suitable technological tools according to the needs of their pedagogy to accommodate emergency remote education (Liu et al., 2021). These conditions created by emergency remote education had emotional and psychological ramifications for most of the students (Schmidt-Crawford et al., 2021). In many cases, the physical distance neutralized the personal interaction and caused a sense of disconnection and social isolation (Banerjee & Rai, 2020; Oyarzun et al., 2021). These feelings negatively affected knowledge acquisition, involvement, and motivation (Pekrun, 2017). Therefore, during emergency remote education, teachers must deal not only with the transfer of knowledge to students, but with caring, empathy and emotional support during emergency remote education (Bozkurt et al., 2020; Bozkurt & Sharma, 2020). In addition, students reported that they had difficulty receiving feedback from their lecturers (Fidalgo et al., 2020) and using assessment tools that were unsuitable for distant learning (Izmagambetova et al., 2022). As such, it was found that there was an increase in lack of academic integrity including a rise in incidents of plagiarism (Lancaster & Cotarlan, 2021).

As part of the necessity to provide an immediate solution for emergency remote education, digital learning was adopted comprehensively across the board (Bozkurt et al., 2020; Corcuera & Alvarez, 2022; Donitsa-Schmidt & Ramot, 2020). In fact, online learning was based on digital tools and from its previous status of being a teaching alternative, it quickly became the principal teaching tool (Gurukkal, 2021). Converting a conventional course into an online course including the use of digital tools demanded expertise in content, pedagogy and technology, and the skill to intertwine the three simultaneously (Gurukkal, 2021; Martin et al.,

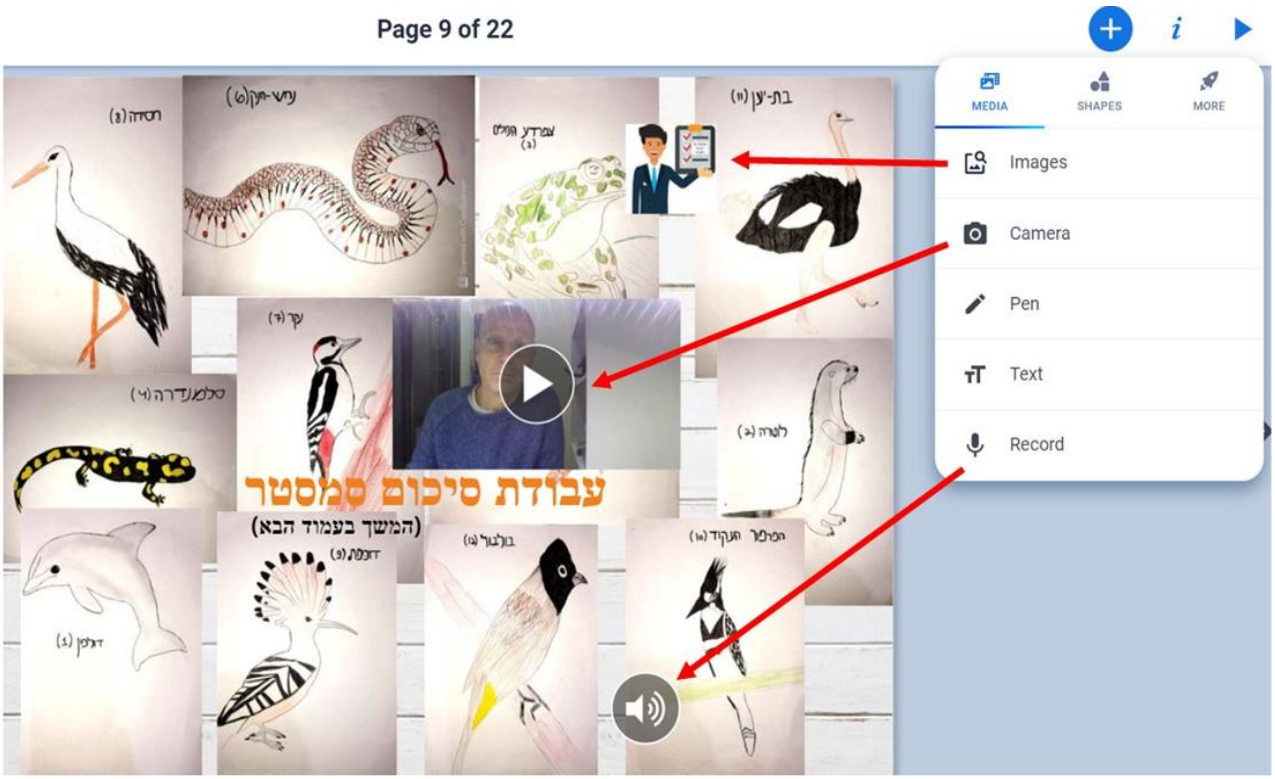

Figure 1. Screen shot of a BC editing that allows the lecturer and the student to add all types of media-rich content to the digital book. On the left is an example of a page the student designed. On the right are function menus that allow the lecturer to leave comments through a variety of means

2021). Combining knowledge content with technology and the use of sound pedagogy is defined as techno-pedagogy (Ozturk et al., 2020). Despite the attempts of higher-education lecturers to teach using techno-pedagogy during the COVID-19 pandemic, students repeatedly reported their dissatisfaction with the lecturers' use of digital platforms and other tools, (Martin et al., 2021). One of the reasons is that the lecturers perceived the implementation of techno-pedagogy as simply an online lecture (Gurukkal, 2021). Lecturers at the Kibbutzim College experienced the sudden lockdown that required the application of techno-pedagogical skills (Donitsa-Schmidt & Ramot, 2020).

A sample of combining digital tools in courses was taken during the academic year of 2020-2021 in two courses taught in the Faculty of Sciences at Kibbutzim College. In these courses, it was decided to adopt the Book Creator (BC) as the main tool for teaching, learning, and assessment.

Describing the Integration of the Digital Tool

The BC is an Internet space that enables the creation of a collaborative classroom learning environment through students' designing and creating a personal digital book that can be observed by anyone participating in the course. In this way, the BC answers the demand that arises in the literature to allow during the distance learning period in general and during emergency remote education in particular, the sharing of tools, knowledge, and listening to different voices and recognition of the uniqueness of the students (Bozkurt et al., 2020; Corcuera & Alvarez, 2022). During the course, students' complete assignments are given by the lecturer. The student can add various multi-media content to the personal book: texts, links to external sites, voice recordings, photographs, or a video clip, and upload a variety of folders, all executed with ease and alacrity. The personal design of the book by each student produces a collection of singular, distinctive digital books and a collaborative learning environment rich in multi-media content. Though the book is personal, the lecturer can add comments, feedback, voice messages, video clips and links, drawings, and photos. In effect, it is possible to create a dialogue not unlike a face-to-face encounter (**Figure 1**). The accessibility in adding various types of media, and the fact that they are accessible to both student and lecturer who collaborate on editing the book, creates a rich learning and teaching experience, different from other digital learning spaces. In spaces such as Moodle, Drive, or shared folders, the possibility of integrating media simply and directly is highly limited and student-lecturer and student-student communication is limited to a solely textual, asynchronous dimension.

Figure 1 is an example of one of the pages of a digital book. This picture summarizes the exceptionality of the BC as a digital teaching and learning tool. In **Figure 1**, we can see the visual vividness and the user's experience that enables simple and straightforward creative self-expression. Concurrently, we can see the video recording in the center, and the voice recording (the loudspeaker icon) that the lecturer added to the student's BC. Thus, what sets the BC apart from other digital tools such as presentations and other shared folders that are common in emergency remote education–is the rich user's experience–one that provides value and meaningful personal expression to learn through design and knowledge construction. Observation of and reflecting on the outcome of the BC during the learning process and at the end of the process creates a sense of flipping through pages of a book.

Three of the foremost applications that distinguish the BC from other common teaching tools are, as follows:

1. the possibility of filming and attaching a video clip directly to the BC by pressing a single button,
2. recording a comment and/or an auditory explanation, and
3. a built-in automatic voice detector that recognizes several languages, converts the voice to a text.

The BC's features enable collaboration and peer learning (Anthony et al., 2020; Gimbert et al., 2021; Lashley & Halverson, 2021). An additional feature is that the BC enables continuous assessment throughout the academic term, as opposed to a singular, one-time assessment, such as a summative assignment. As part of the continuous assessment, the students receive individual multi-media feedback. The students observe the feedback on the screen where his/her lecturer appears in a video, in which the tone of voice and facial expressions can be discerned. The student can respond in the same manner, creating a quasi-continuous dialogue between lecturer and student. This type of ongoing dialogue provides a solution to the drawbacks of online, emergency remote education mentioned by the students throughout the COVID-19 pandemic (Fidalgo et al., 2020; Izmagambetova et al., 2022).

Based on the above, the study's rationale was if and how the use of the BC assisted social-emotional learning (SEL) during the COVID-19 pandemic period of emergency remote education according to the students' perception. Responding to this goal is part of the literary demand for additional studies that will allow delving into and revealing the effects of the change in teaching methods because of emergency remote education (Corcuera & Alvarez, 2022). Moreover, this examination can widen the limited theoretical literary knowledge (Zieher et al., 2021) regarding all facets of SEL components in teacher-training institutions during the COVID-19 lockdowns, when there was extensive use of digital tools. In addition, the study will aid in broadening knowledge regarding how students cope with distance learning in teacher-training institutions and a summons to rethink how lecturers integrate digital tools in emergency remote education, which became the essence of teaching (Gurukkal, 2021). Application-wise, the study will aid in understanding the use of digital tools such as the BC and exploiting its features to enhance student engagement and motivation in teacher-training institutions and integrating distance learning.

LITERATURE REVIEW

The literature review addresses SEL within the context of distance learning during COVID-19 lockdowns. The transition to emergency remote education was abrupt, unexpected, and raised challenges for everyone involved in distance teaching or learning; hence, the perspectives and the solutions provided by the higher-education institutions are considered regarding these challenges.

SEL–Social-Emotional Learning

The definitions of SEL are diverse; the common thread of all is the inclusion of the process that children or adults go through when acquiring various tools that enable future accomplishment in life's encounters. There are those who define SEL as skills, attitude, behavior, cognition, and sense of achievement in school and in students' adult life (Omasta et al., 2020; Zins & Elias, 2006).

CASEL that became the leading national organization that distributes information and publicity for SEL defines this learning as an integral part of education and human development. SEL is a process through which all youngsters and adults acquire and implement knowledge, skills, and perspectives for developing identity, health, emotional management and achieving personal and collective goals, feeling, and demonstrating empathy and maintaining supportive relationships (https://casel.org/fundamentals-of-sel). There are five skills in the CASEL model: self-awareness, self-regulation, relationship skills, social awareness, and responsible decision-making (Anthony et al., 2022). Self-awareness includes the ability to understand feelings, thoughts, and values of the individual and how they affect behavior within various contexts. This awareness includes the ability to identify strong points and limitations of an individual. Self-regulation includes the ability to regulate our emotions, thoughts, and behavior effectively and in different situations, to achieve goals and aspirations, to delay gratification and regulate stress. Relationship skills include the ability to understand the perspectives of others and identify with them, including those with a different background, culture, and context. Additional relationship skills include the ability to feel compassion, to understand wider social norms, ethics, and behavior in other frameworks; to be familiar with resources that support family, school and community. Social awareness includes the ability to create and maintain healthy and supportive relationships and effectively navigate in diverse groups and frameworks. Social awareness includes the ability to communicate clearly, to actively listen, cooperate, to work collaboratively towards problem solving and manage a negotiation regarding conflict constructively, navigate in defining various social and cultural requirements and opportunities, to provide leadership and seek and offer help when needed. Responsible decision-making includes the ability to make mindful and constructive choices regarding personal behavior and social interactions in multiple types of situations, the ability to consider ethical standards and safety concerns, and assess the advantages and ramifications of certain activities for personal, social, or collective gain (https://casel.org/fundamentals-of-sel/what-is-the-casel-framework).

We can summarize and state that SEL is a journey shared by lecturers and students intended to instill skills and proficiencies and address emotional and social perspectives in life situations. This journey includes activities in which students learn to control their behavior, activities that allow the exploration of other people's perspectives, activities that encourage collaboration, creativity critical thinking, and activities that reduce emotional stress and increase a sense of belonging to school and more (Ferreira et al., 2011). Students who participate in a teaching program that emphasizes SEL tend to experience less anxiety, to function better academically, to be more attentive, less hyperactive, and less aggressive in school (Zieher et al., 2021).

SEL During COVID-19 Lockdowns

Teaching during the COVID-19 lockdowns in many cases was accompanied by sudden and continuous uncertainty, changes of academic routine, disconnect, loneliness, difficulty communicating, stress, economic recession, and detriment to personal gain (Basaran & Yalman, 2022; Ritonga et al., 2022). Although there have been previous attempts at distance learning, COVID-19 lockdowns have created a new state of emergency. To allow the continuation of education processes, despite the state of emergency, the education systems activated a wide range of methods designed to emergency remote education (Bozkurt et al., 2020). Emergency remote education forced students into learning situations that were much different from face-to-face classes in academic institutions. Online learning requires students to exercise a series of skills such as self-regulation and navigating in online learning, balancing between studies, and taking care of one's well-being and the family, sharing physical space with the family. Each of these factors alone and all of them combined, diminish the ability of lecturers to teach in a way that promotes SEL (Kamei & Harriott, 2021; Oyarzun et al., 2021; Schmidt-Crawford et al., 2021; Zieher et al., 2021). These considerable interferences that emerged during the COVID-19 lockdowns often disrupted student routine, impeded social interaction, and negatively affected their psycho-social health (Basaran & Yalman, 2022; Schmidt-Crawford et al., 2021).

Students were not the only ones who were affected by COVID-19 lockdowns and emergency remote education (Bozkurt et al., 2020). Lecturers and other professional people were not immune to the effects of the pandemic (Basaran & Yalman, 2022). The education process they were used to in face-to-face encounters were exchanged with online classes and the demand for lecturers to use digital technology in their teaching arose (Basaran & Yalman, 2022; Nikolopoulou, 2022). In addition, lecturers were requested to instill in their students a sense of stability even though there was no stability in their daily life. Despite the tremendous effort to introduce technology into teaching processes in the past two decades, many lecturers were perceived as being unprepared and lacking the proper knowledge necessary to cope with the complexity of distance teaching (Corcuera & Alvarez, 2022; Donitsa-Schmidt & Ramot, 2020; Liu et al., 2021; Nikolopoulou, 2022), and therefore, the use of online learning platforms created obstacles for its implementation (Labadi et al., 2022; Ritonga et al., 2022). Furthermore, lecturers who had never taught using digital tools were forced to cope with difficulties and challenges in operating technology along with the need to provide a supportive environment for the students both emotionally and socially (Chin et al., 2022). Students claimed more than once that teachers replicated their traditional teaching methodology onto the online platforms (Liu et al., 2021). This type of teaching caused students to be passive, inert, and lacking the ability to learn collaboratively. Some institutions found that even if lecturers were familiar with digital tools, often they did not utilize them in ways that would promote SEL (Nikolopoulou, 2022). Assessment was also left unchanged, while lecturers reverted to traditional written tests as a means of evaluation. In addition, the lecturer's ability to provide ongoing feedback to promote an educational dialogue and learning processes and to enable a continual learning process was impaired (Izmagambetova et al., 2022). Nevertheless, it is noteworthy that along with the initial shock of the need to address emergency remote education, the Ministry of Education began to devise accommodations for lecturers. These accommodations included extra support for lecturers, licensing for the digital tools, in-service crash courses and staff conferences as part of the solution-seeking process for SEL (Camlibel-Acar & Eveyik-Aydin, 2022; Donitsa-Schmidt & Ramot, 2020). Lecturers recognized the complexity of distance teaching and used this emergent situation as an opportunity to accommodate their methodology, upgrade their skills, equip themselves with new technology, refresh their teaching tools and redesign their online courses (Liu et al., 2021).

One of the digital tools that the Kibbutzim College used was the BC. This digital tool enables a collaborative learning process through rich multi-media content such as texts, links, audio, and video clips. The BC content is open to all viewers in the course; they can observe it, examine, and assess it. Thus, the BC enables collaboration and peer learning as well (Anthony et al., 2020; Gimbert et al., 2021; Lashley & Halverson, 2021). In addition, the features of the BC enable continuous evaluation by receiving personal, detailed feedback via audio or video recording by the lecturer. Thus, the possibility for an ongoing connection, based on a variety of communication channels like what is made possible by the BC, provides a solution for the disadvantages mentioned by the students during the COVID-19 lockdown (Fidalgo et al., 2020; Izmagambetova et al., 2022). This study seeks to examine which of the SEL competences according to the students, were manifested because of the implementation of the BC during the period of emergency remote education.

METHODOLOGY

The study is based on the qualitative approach and included an inductive analysis of information received from semi-structured interviews. The qualitative approach was chosen as it enables the collection of data and its analysis to evaluate the students' perception–in this case, the use of the BC during the COVID-19 pandemic lockdowns. The study used phenomenology research whose aim is to describe meaning and participants' significant experiences (Saldaña, 2009). The basis for phenomenology research is the idea that a significant factor in understanding human behavior is the personal, subjective interpretation with which the participant in the study itself perceives the world.

Research Context

This study focuses on two courses in the Faculty of Sciences at the Kibbutzim College in Tel Aviv, Israel. These courses present several objectives: acquiring the ability to observe nature and its components through developing curiosity and raising questions; instilling a sense of security for the students in a natural environment so that they will be able to make nature accessible for their future pupils through methodology and providing empowering experiences; presenting basic biological and ecological principles; introduction to vital locations; and acquiring knowledge and skills for teaching various topics. Pre-COVID-19, courses were based on physical encounters in various learning environments, including outdoor learning, field trips, laboratory work, observations,

Table 1. Comparison of the course's features in three stages: Stage 1–Pre-COVID-19, Stage 2–Teaching at the onset of the pandemic; Stage 3–Implementation of the model based on BC

Stage	**1–Pre-COVID-19**	**2–Onset of COVID-19**	**3–Implementation of teaching model based on BC**
Details & features	Based on a combination of F-2-F encounters in class, outdoors, field trips & lab work	Emergency remote education based on online spaces	Digital, visual, auditory, & textual book with links to the Internet learning spaces
Collection of data	Notebook	Notebook	
Knowledge/information design	Mainly textual	Mainly textual	
Evaluation method	Final exam (textual)	Final exam (textual)	Alternative assessment (auditory/visual/textual)
Teacher feedback	Asynchronous, textual at the end of the course	Mainly asynchronous; at times auditory/visual at the end of the course	Mainly asynchronous–auditory/visual/textual throughout course. Given in pages of book next to the assignment product
Learning product	Digital & open only to lecturer as default	Digital & open only to lecturer as default	Digital & open to students & lecturer
Student teachers' collaborative product	Mostly non-existent. If there is collaboration, then only of the final product	Mostly non-existent. If there is collaboration, then only of the final product	Continuous throughout course of assignment. They can follow learning process both personal & that of their peers & gain mutual inspiration even before they submit final assignment
Knowledge construct sources	Students relied mainly on sources that the lecturer supplied (lectures, presentations, videos, articles, etc.	Students relied on sources that lecturer supplied (lectures, presentations, videos, videos of online lessons, articles, etc.	Students relied on internet sources, observing their peers' work & sources supplied by the lecturer

and lectures. These methodologies were intended to serve as a model for teaching and enhance the students' sense of capability to utilize the knowledge learned in their future workplaces, i.e., classrooms. At the same time, an emphasis was placed on teamwork, collaboration, working in groups, and positive learning experiences. At the end of every course, there was a final exam which was the main component of student evaluation.

In mid-semester of March 2020, because of the COVID-19 lockdown, it was necessary to transfer teaching online. Hence, from an outdoor learning experience, field trips and other face-to-face encounters, the courses were converted to online-based teaching from a distance. Towards the beginning of the following academic year, 2020-2021, a teaching model was designed based on the use of the BC. In fact, it is possible to divide teaching in the second semester of 2019-2020, and the first semester of 2020-2021 into three stages: Stage 1–Pre-COVID-19; Stage 2–Teaching at the onset of the pandemic; Stage 3–Implementation of the model based on BC (**Table 1**).

One can observe the main difference and the significant change that occurs in Stage 3 in which BC-based teaching was implemented, creating a more active and collaborative learning experience. Students did not rely only on what the lecturer supplied as a single source of knowledge, but independently designed, according to their own choice, the knowledge they acquired from several sources including their peers' digital books while relating to ethical aspects related to learning. Finally, we can see that teaching during the COVID-19 pandemic using the BC model made it possible to diversify their personal method of self-expression and opened doors to a rich multi-media connection with the lecturer, despite the physical distance and learning in an asynchronous space, which characterize emergency remote education.

Participants and Data Collection Process

The information in this study is based on seven semi-structured interviews with students who study in two courses in the Department of Sciences in a teacher-training college in Israel. Focusing on two courses and only seven participants are clearly limitations of this study. A semi-structured interview based on pre-read articles germane to this topic, is what facilitates researching various topics with the aid of protocol defined with the possibility for a certain flexibility, but through methodical research that allows the interviewer to uphold the content of the research (Fossey et al., 2002). The flexibility, based on the interviewee's prior knowledge, allows the interviewer to deepen and clarify various topics that arise from the interviewee's responses while adhering to the topics s/he would like to investigate in accordance with the interviewee's scope of the topic that is being researched. The interviews took place while the interviewer was acquainted with the participants and had developed a positive relationship with them (John et al., 2022). The questions relating to this study focused on the backdrop of learning during the COVID-19 lockdown and the used of BC. All the interviews, conducted for 45 minutes each, were recorded and transcribed.

All 69 students studying in courses where BC was used received via email a letter of request to participate in the study. In the letter, the goals of the research were detailed, and the approval of the Institutional Ethics Committee was attached. In the end, only seven students were agreed to be interviewed for this study. The interviews were conducted by two of the researchers who did not teach the courses in which BC was used. All participants are in their mid-twenties. Four students belong to early childhood education, two study science for elementary school and one studied science for middle school. For the four students who studied early childhood education, this was their first year of studies at the teacher training institute. For the other three students, this was the second year of their studies at the teacher training institute. In any case, for all seven students it was their first experience in emergency remote education.

Data Analysis

The coding processes were inductive (Yin, 2006), and included first and second coding cycle (Saldaña, 2009). Primary coding of data occurred in the first cycle methods. The objective of the first coding is to detect codes that will enable the construction of categories and then construction of main topics. The transcribed texts from the semi-structured interview were read several times before the beginning of the coding process. This process enabled obtaining a first impression of the information. Later, the coding process began. The texts were reread carefully, and the data were checked before and during the official coding. The first coding was conducted by means of words and short expressions, all concurrent with students' significant quotes. Following the first coding cycle, the second coding cycles began. The main goal of the second coding cycles was to reorganize the data and to thicken the arrangement of data by creating a viable order of the data. Thus, classification, preference, integration, synthesis, etc., was created. The second coding cycle was supported by creating links between categories to develop a more comprehensive representation of the data. In some cases, the coding was conducted again when more precise words or expressions were discovered for the original codes. In addition, several codes that were similar in concept were merged. In this study, a second coding cycle called Pattern Coding was chosen, as it enables the development of key topics from the data that contributes to searching for conventions, causes and explanations in the data, human relations and consolidating theoretical structures and processes. Thus, it is possible to arrange the data into a smaller number of groups (Saldaña, 2009).

Investigator triangulation was the basis for creating reliability in this study (Mostafavi, 2021). Each of the researchers, the authors of the article, read the transcripts of the semi-structured interview several times. Each researcher created the initial codes for himself. A discussion was held between the researchers. In this discussion the different codes of the researchers were examined. This discussion continued until reaching a 95% agreement on the list of codes. A similar process was done in the second coding process. Each researcher examined the findings alone and then a joint discussion was held in which all the researchers decided together on the main themes (**Appendix A**).

Ethics

This study was authorized by the ethics committee of Kibbutzim College. Moreover, all the data collected via interviews remained on the researchers' computers; there is no access to this information. There is no reference to names of the participants and no way to identify them.

FINDINGS

The inductive analysis of the interviews was intended to answer to the question: What competences of SEL were manifested, from the students' perspective, as a result of the implementation of the BC during emergency remote education? This inductive analysis exposed three main themes that are attributed to SEL as it is described in the literature review. The first theme–a collaborative space for peer learning such as learning with the BC. The second theme–moral dilemmas affiliated with a collaborative learning space. The third theme–continuous multi-media feedback that was made possible as a result of the various means of expression possible with the BC.

Collaborative Space for Peer Learning

This theme includes examples of students' attitude towards a collaborative learning space and peer learning that occurred in the course in which the BC was implemented. Collaborative learning space and peer learning were not part of the students' learning experience before the outbreak of COVID-19 (**Table 1**). In answer to the question, "What were the advantages of the use of the BC?" one of the students replied, "…but learning from a notebook is different, it's a marvelous idea…really. Someone designed it like that; perhaps we can learn from it." The student expressed her positive feelings towards the method from the "how"–the digital-book design, and not necessarily the content itself. In response to the collaborative space and observing peer production one of the students mentioned "…this type of learning from someone else is like learning from a teacher. You want to see where your errors were and where you got it right. People want to learn together. You don't want the teacher to tell you; I think that it's how we learn best." Another student stated: "…but it's only after I went into a number of notebooks and saw what they wrote, as well as the feedback they received..." The students claimed that they were interested in seeing their peers' notebooks not only to see what their peers had written, but also to see what type of feedback they had received from the lecturer. From the student's statement, we can understand that the peer work provided a source of knowledge for the participants in the course, in addition to the knowledge the lecturer provided. It is noteworthy, that in contrast to other courses in academia, where students' work in most cases is not open to other students, in this case, the opposite is true; notebooks are open all the time for the participants in the course, and they serve as a source of knowledge and a personal assessment tool as the student mentioned.

Another student shared her thoughts about the advantages of the collaborative space for peer learning: "In the BC, there was no chance of copying, because everyone worked on a different topic–seasons or something like that. But to see how the work was formulated or the direction of thought. I liked this type of learning very much–it's like nurturing each other." In other words, with peer learning, the student learned how her peers formulated their answers and scrutinizes her own work as a result. Furthermore, observing peers' work fosters acquisition of general hyper-skills beyond what is being taught. Another student related to the collaboration that developed during the course using the BC: "I need people around me to learn. I mean, I can push myself to be in the company of others to study with them; the BC helped with this, but it's hard for me to push myself." The student described how studying in a collaborative learning space helped her gain motivation to learn. Another student related to collaborative learning with the BC differently: "It's user-friendly. First, you know you're working with a group–the entire course." This student describes how the BC contributes to classroom cohesiveness. In essence, with these quotes the students testify that a

collaborative learning space and peer learning enables them to acquire knowledge during the course from their peers; it does not necessarily focus on the knowledge the lecturer has transferred. Moreover, the students claimed that learning with the BC encourages motivation and classroom cohesiveness.

Moral Dilemmas Relating to Collaborative Learning

During the course and as a result of the shared exposure to the learning content, an internal ethics-values-related discussion developed among the students. This discussion focused on the topic of plagiarism of their peers' work. The lecturer presented this topic during the first lesson of the semester, but beyond that, no other discussion was held. An example of an internal conversation that characterized some of the students' perspectives was as follows: "You finished your work…it's open…, it's inspiring, …of course we wouldn't copy anything or take anything from someone else–never. But I do see something everyone can learn from." From this quote we can see that the student describes the development of a learning culture that relies on ethical, academic principles.

On the other hand, another student described her dilemma and personal consideration whether looking in the other students' BC is necessarily considered plagiarism.

> "The lecturer talked to us about plagiarism during our freshman year. Personally, whenever I have to write a paper, I enjoy reading my peers' work, just before I submit my own paper. Not because I want to copy, but because…you know what, yes–to copy. To copy the proper wording–a phraseology I can related to. I have a bit of information. It's not one-to-one copying but learning from peers is like learning from the teacher."

This student describes her interpretation of the process of exposing her peers' work. She asked herself whether it is ethical to gain inspiration from her peers after reading their papers and use this information. Is she engaging in unethical behavior? It is clear to her that this is not plagiarism per se, but does it oppose academic ethics? If so, to what extent? The fact that the BC allows students to construct knowledge acquired in the course and present it as a complete process through various creative means, not only textual, turns the BC into a beneficial platform to encourage these types of queries and develop moral-critical thinking, as is expressed in the student's deliberations.

Continuous Evaluation and Multimedia Feedback

The positive attitude towards continuous evaluation and its importance in emergency remote education can be found in this student's testimony: "You can follow it [the BC] and your learning curve, where you were and where you are today. To be reminded of things concretely and in the most pleasing, welcoming way." In fact, the student described how the ongoing evaluation in the BC fostered her ability for self-evaluation. Students also related to the multi-media feedback that accompanied the ongoing evaluation. For example, one student mentioned that observing the feedback she received that was in video form, where the lecturer was both seen and heard, evoked positive feelings as is expressed below:

> "First, it is really, really fun to get feedback in where you can see the expression on the lecturer's face. It's not just 'Good for you' or '75%', or 'This needs work'. It's real feedback in which you see the expression on his face, whether he's joking or not; you know what needs to be done. He greets you–it's so much more human. It's certainly fun to see a lecturer you might not have seen for two or three weeks because of the lockdown."

The student emphasizes that using feedback given in the BC (based on tools mentioned in **Table 1**), the lecturer managed to bridge the physical distance that was so evident in emergency remote education and create a semblance of intimacy. Another student expressed his feeling regarding video-recorded feedback:

> "The lecturer interjects comments while he is checking the work, so throughout the semester we can see what we've done and what we haven't done. He always includes a personal video in which he talks straight to us; it's cool when you suddenly see him speaking right there in front of you."

These two quotes substantiate the students' enjoyment in receiving "live" feedback in the form of a video recording in which they could see and hear their lecturer. It offered the student a source of pleasure, happiness, and an overall positive experience that had not previously been a part of emergency remote education.

DISCUSSION

This study examined which competences of SEL were manifested following the implementation of the BC during emergency remote education (Bozkurt et al., 2020), according to students' perspective. It is noteworthy that as there were only seven interviews, which is one of the limitations for this study, the writers regard the results and findings with caution. The themes that were raised inductively through the students' interviews included relating to several competences of SEL. These themes addressed the collaborative learning space, peer learning, discussions about plagiarism, continuous evaluation, and multi-media feedback. These themes indicated, indirectly, that implementing the BC included several SEL competences. In addition, the students' testimony indicates that learning through the BC provided a solution for the difficulties and obstacles prevalent in emergency remote education. The following discussion focuses on three sections that connect the findings to SEL: Collaborative learning as part of relationship skills and social awareness, alternative assessment, and responsible decision-making, and providing multi-media feedback as part of humanistic teaching.

Collaborative Learning as Part of Relationship Skills and Social Awareness

One of the competences of SEL is collaboration (Gimbert et al., 2021). Some define it as teamwork (NCSL, 2021), developing pro-socialist relations systems (Weissberg et al., 2015) or establishing constructive relationships (Pekrun, 2017) as part of relationship skills and social awareness (Anthony et al., 2022). The students emphasized the contribution of a collaborative learning space, peer learning and the continual sharing of the BC throughout the learning process. This sharing is contrary to traditional methods of content development through individual assignments as is manifested in most education institutions (Bores-García et al., 2021). In most cases, students in academic settings are not exposed to their peers' final products, not to mention their learning process throughout the stages of the course. This study presents that students' exposure to their peers' notebooks provided a source for independent knowledge construction. Observing the learning process of peers enables students to witness their peers' attempts to deal with collecting material, organization and only in the end, to compose the final product. Thus, positive mutual dependence was created (Abramczyk & Jurkowski, 2020; Johnson & Johnson, 2002) and fostered a process in which students were silent partners in the success and challenges that their peers faced. This type of collaboration might aid in tackling similar challenges and normalizing the challenges that they themselves face during the learning process, as well as reaching higher academic goals (Abramczyk & Jurkowski, 2020). Encouraging socialization processes while learning, i.e., this process, provides an opportunity for students to experience some of the competences of SEL (Gimbert et al., 2021; Hart et al., 2020; Pekrun, 2017; Weissberg et al., 2015) and enable them to achieve academic goals (Hart et al., 2020; Merkel, 2021). This is in light of the fact that research indicates that collaboration is more effective than interpersonal competition and individual effort to succeed in the course of study in higher education institutions (Gillies, 2016).

Alternative Assessment and Responsible Decision-Making

While in traditional academia emphasis is placed on personal assessment via assignments and papers (Guangul et al., 2020; Tuah & Naing, 2021), often involving plagiarism (Iqbal et al., 2021), which is considered unethical (Bethany, 2016), the present study presents that collaborative learning enabled by implementation of the BC might set an example for addressing ethical issues in assessment processes and responsible decision-making as part of SEL (Anthony et al., 2020). Students' exposure to their peers' work during the course of study evoked a moral dissonance among them (Almseidein & Mahasneh, 2020). This dissonance stemmed from the clash between literary plagiarism as one of the most common problems in academia, including teacher-training courses (Fons & Torres, 2020; Ilmiah et al., 2021) and the norms established while using the BC. The exposure to information generated by the students in their personal digital notebooks raised ethical considerations that were evident throughout the collaborative learning process: Should they use the information they were privy to in their peers' notebooks, and if so, in what capacity? Is it fair to base one's own work on information, production and later feedback of the lecturers seen on their peers' BC? Do the students have to request their peers' permission to use any part of what they see? Students' deliberations over ethical issues regarding plagiarism is an example of the need to address learning in a conflictual environment, coping with challenging situations, responsible decision-making, critical thinking and considering perspectives, all of which serve as additional components that characterize SEL (Ferreira et al., 2020; Omasta et al., 2020; Weissberg et al., 2015; Zins & Elias, 2006). In the case of this study, using the BC as a collaborative learning tool created an opportunity for the students to consider ethical issues that in most cases do not arise in other courses as found in research (Almseidein & Mahasneh, 2020). Students developed a spontaneous educational discourse unmediated by a lecturer regarding plagiarism. This was not a discussion relating to punishment or sanctions, which is the policy in academic institutions (Merkel, 2021). It seems that the pedagogy used in these courses had a positive effect on the students' attitude towards ethical issues, which is crucial for professional development of morality among pre-service teachers (Balakrishnan et al., 2020). Completing university education that focuses on acquiring large quantities of knowledge does not suffice for making proper decisions on a personal and social level. In this vein, professional development among educators with ethical sensitivity and knowledge that stems from personal experience is far more significant for society, especially during this digital age. Educators are those who enable the transference of knowledge, skills and values for coming generations who represent society's future. Therefore, we must raise awareness among educators regarding responsibility and ethical perspectives in their fields (Burakgazi et al., 2020), as manifested in this study with the use of the BC. We must bear in mind that addressing ethical issues as a one-time effort is not sufficient, and the topic of plagiarism must be readdressed throughout the academic year in higher education institutions in general, and teacher-training colleges in particular (Bergman, 2013).

Multimedia Feedback as Part of Humanistic Teaching

During the course, the lecturer responded to learning processes and production in a wide variety of means: visual, auditory, textual and a combination of these. The fact that the feedback is integrated continuously in the BC following every assignment enabled the students on the one hand, to contemplate the feedback as part of SEL processes (Ferreira et al., 2020); on the other hand, to respond to the lecturer's comments, using the same multi-media and improve where necessary throughout the course. The continuous asynchronous dialogue between lecturer and student throughout the semester using the BC is an aspect of SEL as well (Omasta et al., 2020; Weissberg et al., 2015; Zins & Elias, 2006). This ongoing feedback throughout the course stems from the recognition that encounters between student and lecturer in distance learning cannot be based on a one-dimension / one-off event such as a final exam (Friedman & MaCdonald, 2006). Thus, the feedback can fit in with humanistic teaching principles while it is continuous and focuses on encouraging student development through emphasizing collaboration in the feedback process (Friedman & MaCdonald, 2006; Zuhri et al., 2019). In addition, combining empathy in the feedback process as this study's participants described, is a competence of SEL as well (Anthony et al., 2020; Ferreira et al., 2020; Hart et al., 2020; Lashley & Halverson, 2021). The combination of feedback that espouses humanistic qualities and SEL was mentioned by the students. They stated that the feedback process was characterized by encouraging interaction between students and lecturer, a positive

atmosphere, openness, dialogue, empathy, and sharing resources that foster social awareness (Anthony et al., 2020). In this way, empathy-oriented human pedagogies are created, even if unintentionally (Bozkurt & Sharma, 2020). According to the literature, these components are crucial for defining humanistic teaching (Johnson & Johnson, 2002; Zuhri et al., 2019), and include some of the competences of SEL. According to the students, this type of feedback encouraged them to be active partners in their knowledge acquisition, knowledge construction and its evaluation. Thus, the feedback in the BC aided in decreasing the distance that is inherent in distance learning and strengthening the student-lecturer relationship. Implementation of ongoing feedback using multi-media enables the creation of a learning process based on humanistic features that emphasize the unique competences and skills of each student (Monib et al., 2020). This type of feedback proved compensatory to students' attitudes towards distance learning (Oyarzun et al., 2021). Implementation was possible due to the unique qualities of this digital tool and the lecturer's ability to use it prudently. In the way that BC is used, a response is provided for the demand in the literature that teachers should know the uniqueness of their students and should use teaching methods that respond to the students' different learning styles (Corcuera & Alvarez, 2022).

CONCLUSIONS

The results of this study indicate that prudent use of technology can aid in teaching processes, teaching and evaluating distance-learning students as part of their individual and group experience of learning skills that are relevant for SEL. The students stated that emergency remote education that implemented the BC during COVID-19 lockdowns fostered many competences that define and encourage SEL. Integrating these competences, mainly creating a collaborative learning space, and enabling individual expression through multi-media as part of the learning, teaching, and assessment processes, promoted a positive experience for the students despite the physical distance and lockdown.

In addition, the ability to integrate the BC in science courses during COVID-19 lockdowns helped overcome teaching and learning challenges in emergency remote education. In addition, using techno-pedagogy such as the BC, generated a change in the traditional teaching processes. Concurrently, students addressed ethical issues that aided in fine-tuning the discretion between collaboration and plagiarism. Thus, the students experienced a teaching model that combines moral issues and knowledge acquisition.

Pedagogic Application

Teaching systems in higher education institutions, where lecturers were faced unawares with emergency remote education, made tremendous strides in training lecturers to devise strategies in implementing suitable teaching processes in distance learning (Donitsa-schmidt & Ramot, 2020). Despite the negative feelings that accompanied the initial challenges of emergency remote education and overcoming these feelings due to success in finding technological and educational solutions (Nikolopoulou, 2022), there is still room for improving teaching and assessment methods in distance teaching (Chin et al., 2022). The distinctiveness of the BC is that it integrates a tool that allows the student to revisit and examine his/her individual learning processes at any time and serves as a collaborative environment for learning that enables peer assessment. Though it might be possible to find these features in other digital platforms, the BC enables multimedia feedback at the push of a button.

Integrating the BC as a teaching tool in courses requires indoctrination on the part of both student and lecturer. The lecturer's ongoing multi-media assessment described in this study requires a significant amount of time. For each student to receive humanistic evaluation including individual attention and feedback for each assignment, the lecturer must invest a great deal of effort and persistence. Devoting time to enhance teaching processes and assessment in education institutions is perceived as one of the obstacles of emergency remote education (Chin et al., 2022). To this end, the lecturer must recognize the importance of this matter and internalize the advantages of continuous humanistic feedback that will aid him/her in triumphing over this task. Moreover, lecturers must put aside time to train students how to use the BC effectively. In response to the findings of this study, we recommended conducting a preparatory session with the students regarding the importance of SEL, within the context of collaborative learning and ethical issues, among others, that were expressed by the students who participated in this study.

Limitations of the Study and Recommendations for Further Research

As in every research, there are several limitations in this study. The main limitation is in the small size of the sample, i.e., the number of participants. In addition, the study examined students who were all studying with the same lecturer. The study examined the teaching phenomenon during a lockdown that took place in 2021, a year after the initial lockdown in March 2020. A solution for these limitations could be in further research that will attempt to examine a larger group of students from other courses that used the BC when the teaching process integrated both distance learning and face-to-face encounters. For further research it is recommended to examine the use of the BC not only in teacher-training institutions but also in the general education system, in light of the crises these young learners experienced in schools during the COVID-19 lockdowns. It would be interesting to explore whether the tendencies that surfaced from this study would be similar among students from various ethnic and cultural backgrounds.

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APPENDIX A

Table A1. Examples of themes that emerged from the codes, which represented the voice of the students

Themes	Codes (examples)
Collaborative space for peer learning	Cooperative
	Creativity from sharing
	Learning from peers
	Mutual fertilization
Moral dilemmas relating to collaborative learning	Ethics
	An idea from something else
	See the work of others
	To copy or not to copy
Multi-media feedback	The lecturer is live
	Auditory feedback
	Features of the BC
	The visuals of the tool