

Online Learning Environments as Spaces for Inter-Institutional Dialogue and Interaction: A Best Practice between University Students and Second Chance School Learners

Maria Pavlis Korres^{1,2}

¹Professor, School of Early Childhood Education, Faculty of Education, Aristotle University of Thessaloniki, Greece

²Hellenic Open University, Greece

Correspondence: Maria Pavlis Korres, Aristotle University of Thessaloniki, Greece and Hellenic Open University, Greece.

Received: September 7, 2025

Accepted: October 8, 2025

Online Published: October 10, 2025

doi:10.11114/jets.v14i1.8033

URL: <https://doi.org/10.11114/jets.v14i1.8033>

Abstract

This article presents a best practice implemented in an online course during the winter semester of the 2020–2021 academic year at the School of Early Childhood Education (TEPAE) in Aristotle University of Thessaloniki, Greece. As part of the course Education and Lifelong Learning, available online communication and collaboration tools were utilized to foster connection and interaction between university students enrolled in the course and four adult learners from the Second Chance School (SDE) of Chania, Crete. The screening of a documentary in the undergraduate course—featuring the motivations and experiences of four female learners attending the SDE—served as a trigger for initiating a meaningful exchange of thoughts and emotions between the learners of the two educational institutions. The primary experiences of the SDE learners depicted in the video, and the secondary experience of the university students watching it, led to written communication and interaction between the two groups, that cultivated mutual understanding and critical reflection. The data, analyzed through thematic analysis, were drawn from the e-learning platform used by TEPAE and the written texts sent by the four SDE learners to the university students. Findings show that well-designed online learning environments can foster emotional engagement, empathy, critical reflection, and meaningful learner interaction within higher education learning communities as well as beyond institutional boundaries.

Keywords: adult education, online learning, experiential learning, critical reflection, multimedia, Second Chance School, emotional engagement, online interaction

1. Introduction

1.1 Introduce the Problem

The affordances of technology reduce distances and enable communication, collaboration, and interaction across regions, countries, and continents. In education, these opportunities expanded during the Covid-19 pandemic through e-learning (Amarneh et al., 2021; Lara et al., 2020; Reimers & Operti, 2021; Meng et al., 2024). Research shows that online and blended learning can foster not only access but also meaningful engagement when instructional design supports social presence and interaction (Tu, Wang, & Huang, 2025; Hu & Xiao, 2025).

A carefully designed online university course, based on adult education and distance learning principles (Pavlis Korres et al., 2009; Pavlis Korres, 2021, 2022), can reduce feelings of isolation and limited interaction—barriers frequently reported in online learning (Anderson, 2003; Berge & Huang, 2004; Gillett-Swan, 2017). For adult and non-traditional learners, technology-enhanced approaches help overcome such obstacles and support participation in flexible learning environments (Rott, 2024; Addae et al., 2025).

This paper presents a best practice that promoted communication and interaction not only among university students in an online undergraduate course at the School of Early Childhood Education (TEPAE) but also with adult learners from the Second Chance School (SDE) of Chania, Crete. An educational video served as a stimulus for reflection and dialogue—an approach aligned with evidence that carefully selected video materials motivate, engage, and deepen understanding (Navarrete et al., 2025; Dipon & Dio, 2024; Zolkwer, 2023).

2. Theoretical Framework

2.1 Course Design, Interaction, and Emotional Engagement in Online Learning Environments Explore Importance of the Problem

Designing an online course grounded in e-learning and adult education principles requires the purposeful integration of collaborative and communicative tools and suitable multimedia. Such design supports key objectives: knowledge acquisition, engagement with course topics, the development of secondary experiences and reflection upon them, the exchange of thoughts and emotions, collaboration and dialogue, and interaction in both small groups and plenary sessions (Pavlis Korres, 2020, 2022). In the literature, lack of interaction, immediacy, and proximity are major challenges in online education, so promoting multiple forms of interaction is a central instructional task (Abrami et al., 2011; Anderson, 2003; Beldarrain, 2008; Bernard et al., 2009; Gillett-Swan, 2017). Recent syntheses emphasize designing for behavioral, cognitive, and especially emotional engagement, as these dimensions strongly influence persistence and motivation in synchronous online learning (Tu, Wang, & Huang, 2025; Hu & Xiao, 2025).

Moore (1989) identified three interaction types that support learning: learner–content, learner–instructor, and learner–learner. Forming learning groups provides a natural context to foster all three. Learners engage with content—constructing knowledge by integrating new information into existing cognitive structures—while communicating and collaborating with instructors and peers both synchronously and asynchronously. A fourth type, learner–interface, underscores technology’s central role (Hillman, Willis, & Gunawardena, 1994). Anderson and Garrison (1998) further proposed instructor–instructor, instructor–content, and content–content interactions; notably, instructor–instructor interaction can strengthen professional development via conferences, seminars, and electronic communication.

These diverse interactions can be cultivated through multimedia and the strategic integration of collaborative and communicative tools provided by educational platforms (Pavlis Korres, 2012, 2020). Equally important is the development of a learning community that facilitates member interaction, fosters emotional connection, and creates a sense of belonging—helping to counter the isolation often felt in digital contexts (Pavlis Korres, 2020). Literature consistently highlights the importance of learners’ emotional engagement in online learning, which includes affective responses such as joy, anxiety, belonging, and connectedness (Lin & Sun, 2024). As Wu and Yu (2022) emphasize in their systematic review, when learners build trust and share positive emotions such as enjoyment and pride, they further enhance engagement, motivation, commitment, satisfaction, and overall academic performance. Similarly, Wang et al. (2022) argue that when online learners experience positive achievement-related emotions, they are more willing to participate in learning activities and interact with content, peers, and instructors. More effective interactions within learning activities increase the likelihood of active knowledge construction, reflection on online experiences, and the development of both community and self-regulation. This aligns with recent studies showing that course design features promoting social presence and empathy can reduce isolation and strengthen participation among both traditional and non-traditional learners (Rott, 2024; Addae et al., 2025).

2.2 Multimedia, Collaborative, and Communicative Tools

Collaborative and communicative tools can be synchronous or asynchronous, depending on whether interaction occurs in real time. The literature discusses their advantages and limitations and stresses the need to choose tools aligned with pedagogical goals (Hrastinski, 2008, 2010; Skylar, 2009; Mishra, 2009; Pavlis Korres, 2012, 2021). Synchronous tools enable more dynamic and immediate communication than asynchronous ones (Duemer et al., 2002; Pelowski, Frissell, Cabral, & Yu, 2005). Park and Bonk (2007a) note that synchronous communication can significantly enhance individual participation and group collaboration but requires thoughtful instructional support. They emphasize that “synchronous communication is not automatically successful without the appropriate instructional support from instructors. Online instructors’ roles are critical not only for supporting subject matter but also for facilitating the learning process through scaffolds, feedback, and structure” (p. 253).

Students often prefer synchronous options such as polls, posts on shared workspaces, and live discussions (Karakolidou et al., 2020; Pavlis Korres, 2021, 2022). Anonymous posts on shared workspaces allow all participants, within a limited time, to express themselves freely under anonymity and to interact with others by sharing their own views, reflecting on, and responding to peers’ perspectives (Pavlis Korres, 2020).

Regarding multimedia, which can serve as both a foundation and a tool for professional development and the improvement of teaching practice, the literature highlights the potential of educational videos (Blomberg et al., 2013; Copper & Semich, 2014; LINC, 2011; Pavlis Korres, 2022; Semich & Copper, 2017). Recent evidence further supports that educational videos, when carefully selected and integrated, can promote deeper understanding, empathy, and engagement (Navarrete et al., 2025; Dipon & Dio, 2024; Zolkwer, 2023). Blomberg et al. (2013) argue that the careful selection of a video can play a central role in the educational process and align with pedagogical approaches and learning objectives, noting that “video only effectively grounds learning in practice when carefully selected and **embedded** in learning environments” (p.

106). Focused, short-duration videos on a specific topic can motivate and activate learners (Burden, 2009). Burden further asserts that a powerful and emotionally engaging video at the start of a course “can often achieve engagement and curiosity to learn more in a way that traditional methods struggle to match” (2009, p. 72).

3. Description of the Educational Practice

3.1 Context of Implementation

Experiential learning and critical reflection are central to the course in which this educational practice was implemented. Connecting students’ secondary experiences through video and encouraging reflection allowed them to critically examine their own views and beliefs about education and access to it. When an educational approach moves away from “banking education” and aims toward emancipatory learning (Freire, 1970), experiential activities and learners’ reflection on primary or secondary experiences can prompt them to reconsider their perspectives and assumptions (Cranton, 2006; Brookfield, 1995; Freire, 1970; Mezirow, 2003; Pavlis Korres, 2021).

To this end, videos related to lifelong learning structures and programs were presented. These helped students learn about existing educational frameworks and the opportunities they provide for social and economic inclusion, while reflecting on issues of access—especially for adults from socially vulnerable groups (Kyridis, 2014). One such structure in Greece is the Second Chance School (SDE), launched in the 2000s as a European Commission initiative to combat social exclusion (Nikolopoulou, 2017). SDEs serve adults aged 18 and older who have completed primary school and wish to obtain a lower secondary diploma.

As the name suggests, SDEs offer a “second chance” to those who left formal education and seek reintegration. Attendance lasts two years and is guided by key principles cited by French Commissioner Edith Cresson: flexible courses based on learners’ needs, interests, expectations, and existing skills; restoring lost confidence; a holistic approach addressing diverse learner needs beyond training alone; and high-quality, innovative teaching methods delivered by experienced teachers and counselors who can build trust and support young adult learners (as cited in Nikolopoulou, 2017, p. 123).

Currently, the SDE network in Greece includes 80 schools—12 within correctional facilities—and 27 satellite units, one of them also within a correctional facility (GSVETLL, 2025).

3.2 Using Videos as a Trigger for Critical Reflection and the Recording and Exchange of Views through Collaborative and Communicative Tools

In designing the course, multimedia and a variety of communicative and collaborative tools were deliberately integrated to motivate and actively engage students, promoting interaction with the content, the instructor, and peers (Moore, 1989, 2007, 2019; Thurmond & Wambach, 2004; Mutalib, Halim, & Yahaya, 2016; Pavlis Korres & Leftheriotou, 2016; Tawfik et al., 2018; Park & Bonk, 2007a; Pavlis Korres, 2012; 2020). Recent reviews emphasize that educational videos, when intentionally chosen and embedded in learning activities, can capture attention while fostering deeper understanding, empathy, and critical reflection (Navarrete et al., 2025; Dipon & Dio, 2024; Zolkwer, 2023).

The instructor carefully selected videos to engage emotions and challenge stereotypes about socially vulnerable groups, including incarcerated individuals, Roma communities, older adults, and those who have not completed compulsory education. After each video, learners wrote individual, anonymous reflections on a shared workspace (Padlet). The instructor then highlighted selected excerpts, synthesized and presented key ideas, and facilitated a plenary discussion on the issues raised. This process helped students think critically, confront assumptions, and reflect on social inclusion and education.

3.3 Phases of the Educational Practice

During one course session, after communication between the TEPAE instructor and a teacher from the Second Chance School (SDE) of Chania, a documentary was shown. Created by the SDE in collaboration with instructors and learners, the video—titled *Don’t ever say “It’s too late”*—runs 8 minutes and 30 seconds and shares the personal stories of four women. Their testimonies, reflecting on school dropout and later return to education through the SDE, highlight diverse reasons and emotional journeys.

Approximately ninety students attended the session. After the screening, they were invited to post reflections on Padlet about the video. Eighty-six posts captured their thoughts, with key themes emerging around emotions and critical reflection. With the consent of those who posted, the TEPAE instructor shared the anonymous comments with the SDE teacher, who then communicated the students’ reactions to the SDE learners. The instructor also relayed the students’ invitation for the four learners to respond if they wished.

In the following university session, one week later, the instructor informed students that their comments had been sent to SDE Chania and that the four learners had agreed to reply. Two weeks after the initial posts, the SDE learners provided written responses. The TEPAE instructor presented these texts during the next online session, using them as a new stimulus

for reflection. Students posted additional reflections on Padlet, guided by two axes proposed by the instructor, followed by a plenary discussion. At the end of the session, participants recorded their emotions on Padlet, creating a collective “emotional map.”

Figure 1 summarizes the three phases of the educational practice.

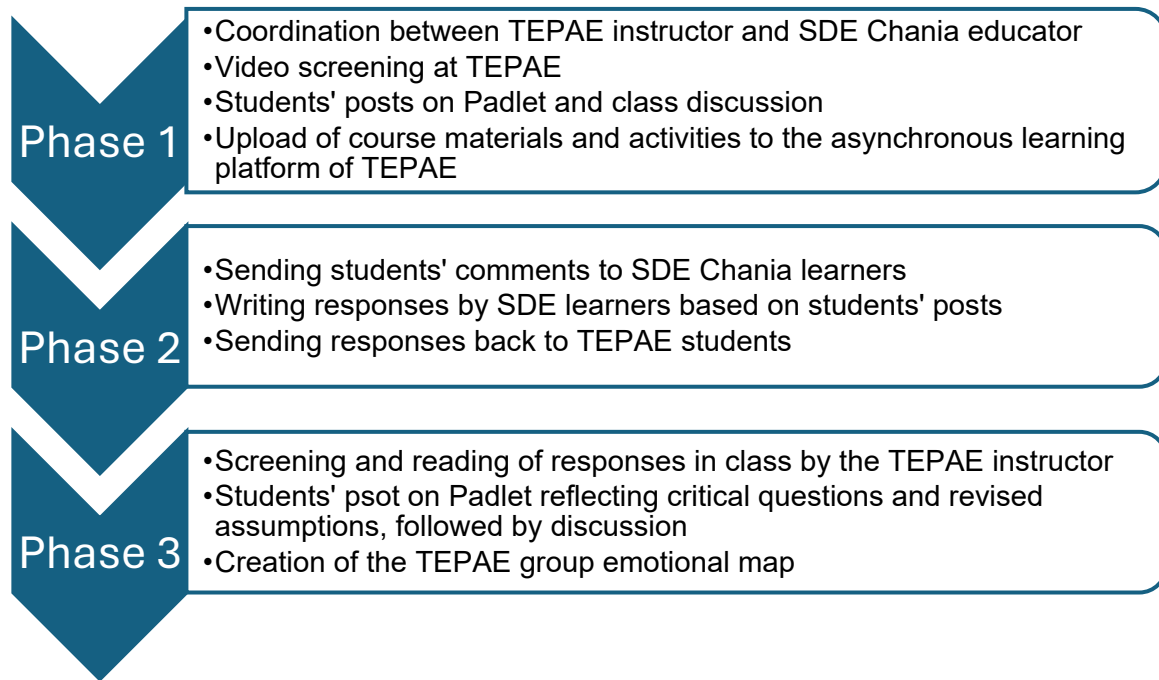


Figure 1. Phases of the educational practice

As illustrated in Figure 1, in the first phase, following communication between instructors from the two institutions (TEPAE and SDE), the video is shown in the university course. Students reflect on their secondary experiences, record their thoughts and emotions on a shared workspace, and join a plenary discussion. Materials and activities from the session are then uploaded to the asynchronous platform for further review and personal processing.

In the second phase, the TEPAE instructor reconnects with the SDE teacher. The students’ reflections and emotional responses are shared with the SDE learners, who prepare written replies.

In the third phase, the TEPAE instructor presents the SDE learners’ responses, prompting further critical reflection. Students record new thoughts and emotions on collaborative platforms and join another plenary discussion. At the close of the session, they log their feelings on Padlet, forming a group “emotional map.”

4. Methodology

4.1 Thematic Analysis

A thematic analysis was conducted to identify the main themes and subthemes at each phase of the educational practice. This flexible yet rigorous approach was chosen because it systematically captures patterns of meaning across qualitative data (Braun & Clarke, 2013; Tsiolis, 2018).

The data corpus included:

- students’ anonymous posts after the initial video screening,
- posts following the presentation of the SDE learners’ responses,
- the group “emotional map” created at the session’s end, and
- the written texts of the four SDE learners.

The analysis followed Braun and Clarke’s (2013) six-phase framework. First, the research team (the course instructor and a second researcher experienced in qualitative analysis) familiarized themselves with the data by repeatedly reading the Padlet posts and SDE learners’ texts. Second, they generated initial inductive codes to capture meaningful information. Third, similar codes were clustered into potential themes and subthemes, with scope and content refined through iteration. In the fourth phase, emerging themes were reviewed against the coded extracts and the whole data set to ensure internal coherence and clear distinctions among themes. Fifth, each theme was defined and named to capture its essence.

To strengthen credibility and trustworthiness, coding decisions were discussed until consensus was reached, and any disagreements were resolved through dialogue and reference to the raw data. Peer debriefing was also used: a third colleague reviewed the clarity and coherence of the identified themes. Finally, the themes and subthemes were documented and presented in figures and tables to ensure transparency.

4.2 Ethical Considerations

This study followed established ethical guidelines for research in educational settings. Before sharing students' anonymous Padlet posts with adult learners from the Second Chance School (SDE) of Chania, the course instructor at the School of Early Childhood Education (TEPAE) clearly informed participants about the activity's purpose, how their reflections would be used, and their right to decline or withdraw. All students voluntarily consented to the sharing of their posts. All students voluntarily agreed to the sharing of their posts.

Participation by the four SDE learners was also entirely voluntary. The SDE educator informed them about the purpose of the activity and how their written responses would be used within the university course and potentially in future dissemination of the practice. The learners explicitly agreed to the use of their contributions and even stated that their names could be included; however, to ensure privacy and confidentiality, only anonymized data have been used in the present article.

All data analyzed (students' posts at each activity stage and the SDE learners' texts) were anonymized; no personally identifying information was stored or published. Formal approval from an institutional Research Ethics Committee was not required for this pedagogical intervention; however, the study complied with widely accepted standards for research with human participants, including respect for autonomy, voluntary participation, and data protection. The research process also aligned with the European Code of Conduct for Research Integrity (ALLEA, 2023).

5. Results

5.1 Students' Emotions and Reflections after Watching the Video

After the initial screening of the documentary *Don't ever say "It's too late"*, students shared emotions and reflections through 86 anonymous Padlet posts. The main themes are shown in Figures 2 and 3.

Regarding emotions (Figure 2), most students reported feelings such as *being moved*, *sadness*, *shame*, *pride*, *optimism*, and *admiration*.

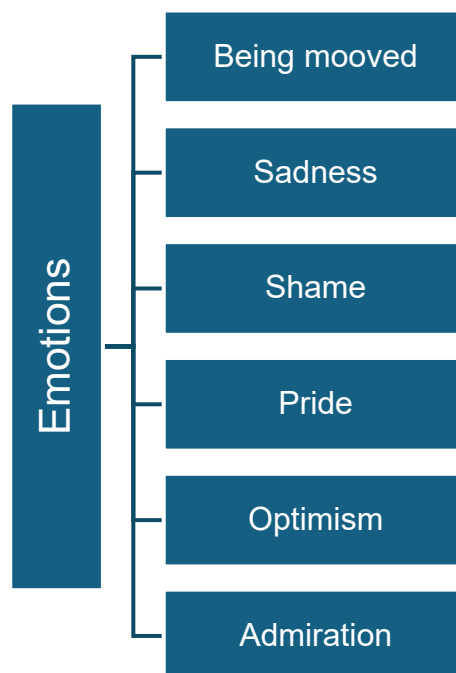


Figure 2. Students' emotions after watching the video

Representative comments included: "Extremely moving! My heart tightened when I heard the first story!!", "So touching and interesting!! There is hope for the improvement of society!!", "I would like to give a hug to the lady in the orange blouse in the video.", "I am speechless; it touched and moved me 100%!", "Words are unnecessary! Wonderful video, deeply moving and authentic!", "The best and most moving thing I have ever seen!!!!!!!!!!!!!!", "Stunning video. I

genuinely got goosebumps watching it.” “Shame that some people decided the future of these brilliant women, and admiration for their determination and perseverance...”, “I admired these women for their strength and willpower!!!”

Regarding the reflections (Figure 3), the main thematic areas included:

- connections between the women’s experiences and students’ own life paths,
- the educator’s role in teaching,
- lifelong learning structures,
- the resilience of SDE learners,
- adult education, and
- the position of women in society.

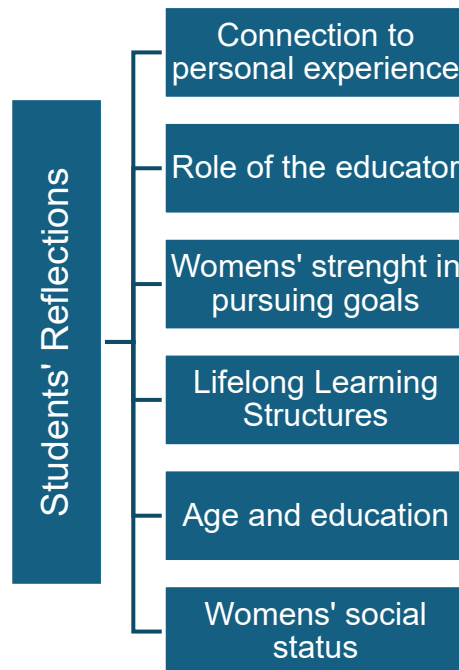


Figure 3. Students’ reflections following the video screening

Representative comments on personal connection with the SDE learners’ experiences included: “The video made me reflect on myself and the fact that I am at university. I entered as part of the 5% of students with special needs, at the age of 53, and one main reason was that I had not studied before—it was a dream I had since my youth,” “I made a major decision to change my profession, saying exactly ‘it’s never too late,’ and since then I have adopted this in my life. Today, I am practicing the profession I love...,” “This video is very moving and inspires you to chase your own dreams because, as the title says... ‘it’s never too late’!!!,” “It conveys optimistic messages because indeed it is never too late to do anything! All it takes is self-belief and dedication! This video truly motivated me to pursue everything I want without feeling ashamed!!,” “I attended evening school, and I can say that these people are fighters,” and “Educational, encouraging, moving, and optimistic message! I relate to it and feel validated in my decision to expand my studies, broaden my horizons, and understand that no obstacle is insurmountable. All it takes is willpower and passion!!!”

Students’ admiration and appreciation for the four SDE learners were evident in comments such as: “Wonderful inner strength from these amazing learners!! They deserve our admiration!”, “Opportunities exist for everyone! We must never lose morale or despair! Bravo to all these people who demonstrate such inner strength!”, “Very interesting video; it shows us that those who did not succeed for any reason have the opportunity to try again. It’s never too late!”, and “Wonderful video, truly bravo to them for their strength and effort. We should always pursue our dreams, even if they seem impossible!”

Students’ reflections on the role of the educator were also clearly expressed in their posts: “...the most significant obstacle I might face is that teachers are often not present for their students,” “Incorrect pedagogical stance by the teacher,” and “Frustration towards the teacher who created obstacles for the first woman, without looking deeper...”.

Students’ awareness of the opportunities offered by existing educational structures and their familiarity with adult education programs stimulated reflections on lifelong learning, adult education, and the role of women in society.

Representative comments included: “It is moving that people strive, and I would like to see more attending SDEs!! Although I do not know them, I feel proud of them, and they deserve a thousand congratulations,” “The SDE provides people with the opportunity to realize their dreams,” “The soul never stops asking and dreaming...,” “It is never too late to take your life into your hands and evolve! Age is not an obstacle for what we desire,” “Great emotion that some people continue to dream and achieve even when considered ‘old’ according to societal stereotypes...,” “...dreams and aspirations have no age,” “It is never too late to take your life into your hands and evolve. Age is not an obstacle for what we desire,” “November 25, 2020, and yet women are still considered inferior to men,” “How much undervaluation women faced and still face! How far behind they fall due to motherhood!” and “...unfortunately, we see that the position of women has not yet reached where it should be.”

5.2 Written Texts of the Four SDE Learners to the TEPAE Students

The four SDE learners focused on the emotions evoked by reading the TEPAE students’ posts, expressing gratitude and sending well-wishes. They also shared their views on access to education, the “second chances” life and education can offer, and the role of educators—especially early childhood teachers—in supporting their own learners (Figure 4).

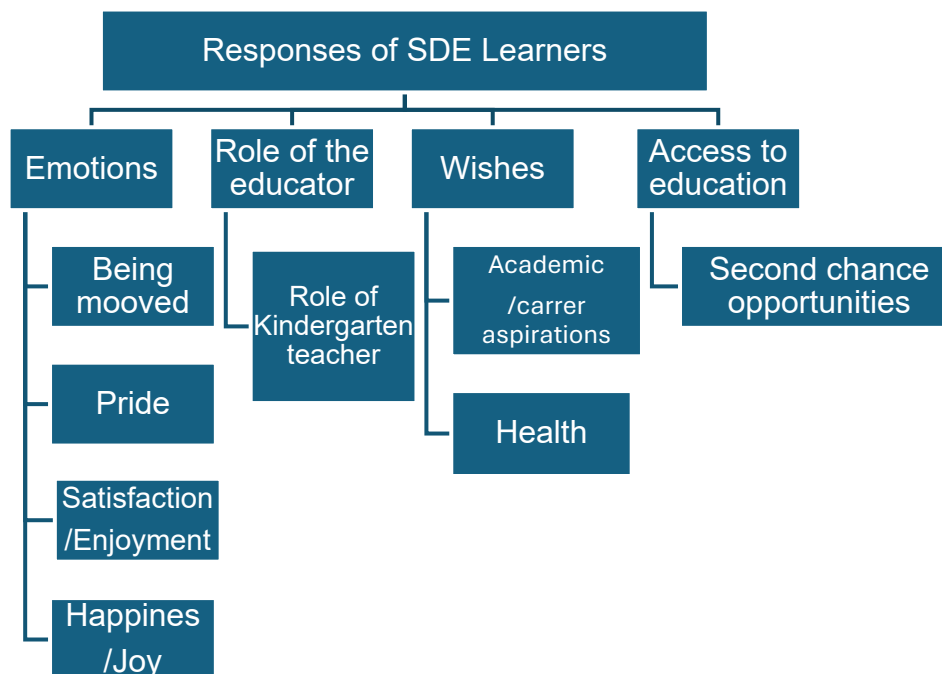


Figure 4. Thematic Map of Second Chance School Learners’ Responses

With the consent of the four learners, we present in full the texts they sent to the students of the Department of Early Childhood Education (TEPAE):

Learner A: I was overwhelmed with intense emotions while reading your comments—feelings of deep emotion, pride, and immense happiness. I felt as though I had “entered” university, even if only intellectually, thanks to my teachers, Ms. X and Ms. Y, who organized all this, since attending in person is now an unattainable dream for me. You made me feel truly “important” through your interest and the warm words you wrote about our work and about me personally.

Allow me, just for the record, to share that later on my relationship with that particular teacher was restored. He even offered me the possibility of borrowing books from his personal library whenever I wished, which I naturally accepted. Deep down, I have forgiven him, as he seemed remorseful—although we never discussed the matter again.

If I may, addressing the Department of Early Childhood Education, I would like to stress that the educational stage you will be teaching later on, together with primary education, is, in my opinion, the most important in a person’s life. At that age, children shape their character and personality. When someone clips their wings (which, unfortunately, unlike teeth, do not grow back), the bitterness will always accompany them, whatever else they achieve in life; therefore, your work—and your responsibility—is immense!

A heartfelt thank you! And I return the embrace!!! I wish you happy holidays, health and happiness in your personal lives, a smooth graduation, and a successful career!

Learner B: At a crossroads in my life, school came to me—SCS came to give me spiritual uplift, culminating in the

documentary that made me feel both pride and deep emotion about myself. Not even in my wildest dreams did I imagine what I experienced and felt.

I now attend the same class as my granddaughter—yes, it truly is never too late. I feel grateful that fate allowed me to live this dream, and I thank my teachers who guided me towards this joy.

And finally, I thank all of you who watched it and wrote such kind and encouraging words. Indeed, it is never too late!

Learner C: I too would like to thank you for your comments. They were truly moving, and I consider it an honor that, even in the form of an “assignment,” I was able to reach the Aristotle University.

May you all be well, and may you continue to pursue your goals with patience and perseverance, even in the midst of a pandemic. Always optimistic about the future, I believe that we will overcome this together! Health comes before everything.

I wish you strength and success in all your endeavors. Thank you so much!

Learner D (graduate of SCS Chania): I feel a mixture of emotion, joy, and hope. The comments I read moved me greatly. They brought me joy because, through this effort of the university to open a window to learning, I was able to contribute even a small stone. Yet the most important thing, in my view, is a ray of hope.

If our little video managed to move so many people, then perhaps the message will also reach those who need it most—those, like me, whose life circumstances once forced them to abandon school... and the years went by. May they realize that it is never too late! May they allow their steps to lead them to the SCS of their city, to journey into the world of knowledge and learning. Age does not matter—I myself am 48, and I am proud to be attending the first grade of Senior High School.

Finally, I would like to thank the teachers of the SCS for this beautiful journey and all of you for the love and embrace you offered through our video—with the hope that it may inspire the opening of a path towards school, one that many more feet will walk.

5.3. Posts by TEPAE Students Following the Presentation and Reading of the SDE Learners’ Responses

After the SDE learners’ responses were displayed on the computer screen and read aloud, the TEPAE students were invited to write on a shared online workspace (Padlet). They were asked to post both critical reflection questions that emerged for them and views they had reconsidered through the “dialogue” (discourse) that developed with the SDE learners of Chania.

Out of the fifty-six posts submitted, a thematic analysis revealed the main themes and subthemes, as presented in Tables 1 and 2.

Table 1. Critical Reflection Themes and Subthemes from Students’ Posts on the Shared Workspace

Themes	Subthemes
E-learning	<ul style="list-style-type: none"> • Can e-learning be interactive, and under what conditions? • Is there good and bad online education, as there is good and bad face-to-face education? • What are the conditions for effective lessons, whether face-to-face or online? • Can strong emotions be evoked through e-learning despite physical distance?
Lifelong Learning	<ul style="list-style-type: none"> • What is the role of the state in informing about and operating lifelong learning structures? • How does the state support Second Chance Schools, and how does it inform citizens about their existence and operation? • Can age act as a barrier to pursuing our dreams? • Is it ever too late for someone to follow their dreams?
Role of the Educator	<ul style="list-style-type: none"> • How important is it for the educator to “listen” to the children and support their learning? • How important is it to acknowledge people’s efforts?
Experiential Learning	<ul style="list-style-type: none"> • How does people’s experience intersect with science and education? • How can we use people’s experiences to improve ourselves in the future?
Interaction	<ul style="list-style-type: none"> • Why shouldn’t there be interaction and communication-collaboration between classes and educational levels? • Does physical distance hinder meaningful communication between people?

The students' reflections after critically engaging with the educational experience focused mainly on online education—its possibilities and effectiveness. They also deeply explored adult education, the institutional frameworks and the state's role in lifelong learning, as well as the role of the educator.

Table 2. Students' Revised Views after Dialogue with Second Chance School Learners and the Course's Educational Process

Revised Student Perspectives
Education is taken for granted for everyone → Education is not taken for granted for everyone
Age is a barrier to achieving goals → It is never too late to pursue what you want; therefore, you should follow your dreams
We cannot achieve whatever we want → If you truly want something, you will find a way to achieve it
Distance hinders emotional connection → Being moved by how close we felt to people who are physically far away
Online learning is not interactive → Online learning can be interactive
Online education is impersonal and lacks social interaction → In online education, one can experience strong emotions despite the physical distance between learners
Online education cannot replace the immediacy of face-to-face learning → Online education can be equally effective as face-to-face learning
Value of formal education → Recognition of other forms of learning and education

Regarding the assumptions that were reconsidered, some illustrative student posts included: "Something that is taken for granted by us... is not for some people!", "The problem is that we, as young people, consider education a given, when in reality it is not!! We thank the ladies who once again proved to us that nothing is guaranteed and that if you love something, it is worth pursuing! My love and kisses to these admirable heroines.", "We must not take education for granted for everyone.", "This situation moved me, made me reflect, and caused me to reconsider certain things.", "The lesson moved me, and I realized that what we consider self-evident, there are people who never had the chance to experience.", "At a time when contact and communication with others is difficult, I felt their presence through just a few lines. We do not know the ladies personally, nor do they know us, yet that does not prevent the emotions we can share with one another.", "The 'dialogue' that developed between us was so meaningful. I will always remember: 'do not clip their wings because they are not teeth that can grow back...'", "Without knowing each other... both sides felt such strong emotions.", "It was touching how close we felt to these people, even though they are so far away from us.", "Some people are more educated than others with degrees. Unfortunately, values are not taught in schools."

5.4 Emotional Map of the Group

At the conclusion of the two lessons, the instructor invited students to record their feelings. Sixty-three (63) students shared their emotions on Padlet, creating the group's emotional map at the end of the second lesson. The main emotions recorded are shown in Figure 5.

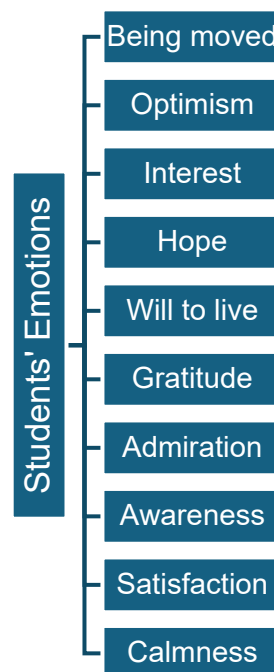


Figure 5. Students' Emotional Map at the end of the Second Lesson

The main themes that emerged concerned positive emotions, such as being moved, hope, optimism, interest, gratitude, awareness, admiration, satisfaction, and calmness. Representative student statements included: “Words are unnecessary”, “We warmly thank you for the wonderful feelings and experiences we gain in your class”, “Wonderful class! Thank you so much for all these amazing things you teach us... It is very experiential!”, “Moved, this whole situation makes us reflect and reconsider certain things”, “So moved!!! You managed to engage our emotions!!! Well done!!! Learning is truly established when it has authenticity, experiential experiences, and intrinsic motivation!”, “A lot of emotion at this moment. And many thoughts. Great gratitude for today’s lesson. Thank you so much, teacher! I wish all lessons could give what we gain in Lifelong Learning...”, “Calmness and a sweet sense of satisfaction”, while one student wrote to the four SDE learners: “Moved and happy that, even during this difficult period we are experiencing, we managed to communicate, and you shared your life with us!! Thank you very much for the experience and the exchange of these beautiful emotions!!”.

6. Discussion – Conclusions

The students’ active participation and the strong emotions and thoughts they reported after watching the video align with the literature on the impact of carefully selected, emotionally powerful videos in motivating and engaging learners (Blomberg et al., 2013; Burden, 2009; Copper & Semich, 2014; LINC, 2011; Pavlis Korres, 2022; Semich & Copper, 2017). Recent reviews further confirm that well-designed educational videos can support deep learning, stimulate reflection, and promote engagement (Navarrete et al., 2025; Dipon & Dio, 2024). Practical design guidelines also highlight features that enhance accessibility and emotional resonance (Zolkwer, 2023).

In this study, the selection and screening of the documentary within the course *Education and Lifelong Learning*, combined with the applied pedagogical approach and support provided (Park & Bonk, 2007b), positively stimulated students, sparked their interest, prompted reflection through the secondary experiences they observed, and engaged them emotionally in the educational process.

The responses of the four SDE learners to the TEPAE students align with Wang et al. (2022), who argue that when learners experience positive achievement-related emotions, they are more willing to participate in learning activities and interact with the content, peers, and instructors. This finding also supports recent syntheses that highlight the key role of emotional engagement—alongside cognitive and behavioral participation—in sustaining motivation and persistence in online contexts (Tu, Wang, & Huang, 2025; Hu & Xiao, 2025).

It is evident that various types of interaction were developed during the implementation of the educational practice, including learner-content interaction, learner-learner interaction, learner-instructor interaction, and instructor-instructor interaction (Anderson, 2003; Moore, 1989, 2007, 2019). Throughout the semester, the course’s design—grounded in adult education principles and adapted to an online learning environment—played a crucial role in fostering these interactions, cultivating a sense of belonging, and enhancing immediacy and proximity with both instructor and peers (Pavlis Korres, 2020, 2022).

This aligns with recent studies showing that well-structured, technology-supported collaborative spaces can empower adult learners and build self-confidence (Cherrstrom, Hyden, Boden, Singh, & Xie, 2024; Winfield, Hughes, & Huffman, 2023). The effective use of communication and collaborative tools on the TEPAE educational platform (Duemer et al., 2002; Hrastinski, 2008, 2010; Pelowski, Frissell, Cabral, & Yu, 2005) further facilitated meaningful interaction among students and with the SDE learners. The educational practice presented here confirms that interaction in an online learning environment is both feasible and effective when adult education principles are integrated into the course design and implementation (Pavlis Korres et al., 2009; Pavlis Korres & Leftheriotou, 2016; Pavlis Korres, 2021, 2022).

Communication between instructors from the two institutions (TEPAE and SDE) promoted instructor-instructor interaction (Anderson & Garrison, 1998). It also contributed significantly to adapting course content to the needs of each group and to fostering interaction at multiple levels: among learners and content, among learners themselves, with their instructor (Moore, 1989) and even between learners from the two institutions, as demonstrated in this educational practice.

The students’ revised perspectives confirm that using experiential learning and critical reflection on learners’ experiences—whether primary or secondary—can lead to a reevaluation of opinions, attitudes, and assumptions, and potentially to their revision (Brookfield, 1995; Cranton, 2006; Freire, 1970; Mezirow, 2003; Pavlis Korres, 2021). One notable example was the TEPAE students’ change of view about the effectiveness of online courses: after their experience and critical reflection, they reconsidered the belief that online learning is inherently less effective than face-to-face instruction. This shift aligns with research on the effectiveness of online learning (Abrami et al., 2011; Pavlis Korres, 2020). Recent studies on online education during the pandemic also show that its effectiveness depends on course design, participant interaction, students’ emotions, and social presence (Meng et al., 2024; Rahman, 2021; Tsang et al., 2021), confirming the importance of the elements applied in this practice.

The recording of students' emotions—both after viewing the video and later in the group's emotional map at the course's conclusion—together with the emotions expressed by the four SDE learners in response to the students' posts, aligns with literature on the positive influence of emotions on learning effectiveness (Claus & Changchit, 2017; Driver, 2002; Hong, 2002; Immordino-Yang & Damasio, 2007; Oyarzun, Stefaniak, Bol, & Morrison, 2018; Pavlis Korres, 2021, 2022; Schmidt, 2017; Tan, Mao, Jiang, & Gao, 2021).

The potential of today's educational technology, when purposefully harnessed to serve pedagogical goals, can bridge geographical distances and foster communication and interaction among learners from different educational institutions, as well as between instructors. Thoughtful selection of multimedia and collaborative communication tools can motivate learners, enhance active participation, and promote different types of interaction — learner–content, learner–learner, learner–instructor, and instructor–instructor (Anderson, 2003; Anderson & Garrison, 1998; Beldarrain, 2008; Karakolidou et al., 2020; Moore, 1989; Pavlis Korres, 2012, 2020, 2022). This reinforces recent evidence that connecting adult learners with future teachers through digital platforms can strengthen social presence and mutual understanding (Rott, 2024; Addae et al., 2025). During the study period, interaction between learners from the two institutions was particularly meaningful, as in-person education and communication were not possible due to Covid-19 restrictions.

Beyond the specific context of this course, the present educational practice offers valuable implications for online learning and adult education in higher education settings. By purposefully integrating emotionally resonant multimedia and structured opportunities for interaction, instructors can foster deeper engagement, empathy, and critical reflection among adult learners. Equally important, the practice demonstrates how inter-institutional dialogue and interaction — connecting students and educators across different educational contexts — can enrich the learning experience, broaden perspectives, and cultivate social presence and professional identity. These findings can inform online course designers in creating environments that balance emotional and cognitive engagement, promote social presence, and support meaningful learner–content and learner–learner interactions across institutional boundaries. For higher education institutions, the approach provides a model for bridging theory and practice, preparing future educators to design online learning experiences that are interactive, inclusive, and responsive to students' affective and cognitive needs. Moreover, educational policymakers can draw on these insights to support institutional strategies and policies that encourage well-designed, emotionally engaging, socially connected, and inter-institutionally collaborative online programs that enhance participation and persistence among diverse adult learners.

Overall, the findings highlight the opportunities online education offers for meaningful communication and interaction when combined with sound pedagogical approaches (Abrami et al., 2011; Amarnah et al., 2021; Park & Bonk, 2007a, 2007b).

Furthermore, experiential learning through secondary experiences provided by multimedia can foster empathy, critical reflection, and awareness of reality (Brookfield, 1995; Cranton, 2006; Freire, 1970; Mezirow, 2003; Pavlis Korres, 2021). Creating conditions that support emotional connection among students, encourage social interaction, and increase satisfaction remains an ongoing challenge for instructors, as the literature shows that learning effectiveness is directly influenced by positive emotions (Immordino-Yang & Damasio, 2007; Schmidt, 2017; Tan, Mao, Jiang, & Gao, 2021).

7. Study Limitations

Although this work offers meaningful insights into the use of online learning environments for inter-institutional dialogue and interaction, several limitations should be acknowledged. First, the study focused on a single educational context — one undergraduate course at the School of Early Childhood Education (TEPAE) and four adult learners from one Second Chance School (SDE). This may limit the transferability of findings to other settings and learner populations. Second, the qualitative design provided in-depth understanding but does not allow for statistical generalization. Third, the practice was implemented within a specific timeframe and under the exceptional circumstances of the COVID-19 pandemic; therefore, the sustainability and long-term impact of such inter-institutional online exchanges remain to be further explored. Finally, the absence of a control or comparison group makes it difficult to attribute all observed changes in students' perceptions and emotions solely to this educational practice.

8. Suggestions for Future Research

Future studies could build on this work in several ways. Replicating the practice in different cultural and educational contexts, or with larger and more diverse groups of university students and adult learners, would help test the transferability and robustness of the findings. Longitudinal designs could examine the longer-term effects of inter-institutional online interaction on learners' critical reflection, engagement, and emotional connection. In addition, future research could combine qualitative and quantitative methods to provide a more comprehensive evaluation of learning outcomes and emotional impact. Finally, exploring the use of other types of multimedia and collaborative tools may further optimize online course design for fostering meaningful dialogue and interaction across institutional boundaries.

Acknowledgments

Warm thanks are extended to the four learners of the Second Chance School of Chania and to their teacher, Ms. Frosso Tzifalia, as well as to all the students who formed the wonderful learning community of the course “*Education and Lifelong Learning*” during the winter semester of the 2020–2021 academic year at the Department of Early Childhood Education, Aristotle University of Thessaloniki.

Authors contributions

Dr. Maria Pavlis Korres was responsible for study design and implementation. The author read and approved the final manuscript.

Funding

No funding.

Competing interests

The author declares that she has no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Informed consent

Obtained.

Ethics approval

The Publication Ethics Committee of the Redfame Publishing.

The journal’s policies adhere to the Core Practices established by the Committee on Publication Ethics (COPE).

Provenance and peer review

Not commissioned; externally double-blind peer reviewed.

Data availability statement

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

Data sharing statement

No additional data are available.

Open access

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

References

- Abrami, P. C., Bernard, R. M., Bures, E. M., Borokhovski, E., & Tamim, R. M. (2011). Interaction in distance education and online learning: using evidence and theory to improve practice. *Journal of Computing in Higher Education*, 23, 82-103. <https://doi.org/10.1007/s12528-011-9043-x>
- Addae, D., Abakah, E., & Amuzu, D. (2025). Exploring the online learning readiness of nontraditional learners in a Ghanaian university. *International Journal of Educational Research Open*, 8(2), 100407 <https://doi.org/10.1016/j.ijedro.2024.100407>
- ALLEA – All European Academies. (2023). *The European code of conduct for research integrity* (2023 update). Berlin: ALLEA. <https://allea.org/code-of-conduct/>
- Amarneh, B. M., Alshurideh, M. T., Al Kurdi, B. H., & Obeidat, Z. (2021). The Impact of COVID-19 on E-learning: Advantages and Challenges. In: A.E. Hassanien et al., *Proceedings of the International Conference on Artificial Intelligence and Computer Vision (AICV2021)*. AICV 2021. Advances in Intelligent Systems and Computing, vol 1377. Springer, Cham. https://doi.org/10.1007/978-3-030-76346-6_8
- Anderson, T. (2003). Models of Interaction in Distance Education: Recent Developments and Research Questions. In M. G. Moore & W.G. Anderson (Eds.), *Handbook of Distance Education* (pp. 129-144). Lawrence Erlbaum Associates, Publishers.
- Anderson, T., & Garrison, D. R. (1998). Learning in a networked world: New roles and responsibilities. In C. Gibson

- (Ed.), *Distance Learners in Higher Education* (pp. 97–112). Atwood Publishing.
- Beldarrain, Y. (2008). Integrating Interaction in Distance Learning: A Comparative Analysis of Five Design Frameworks. In C. Bonk, M. Lee & T. Reynolds (Eds.), *Proceedings of E-Learn 2008-World Conference on E-Learning in Corporate, Government, Healthcare, and Higher Education* (pp. 1471-1477). Association for the Advancement of Computing in Education (AACE). <https://www.learntechlib.org/primary/p/29841/>
- Berge, Z., & Huang, Y. (2004). A model for Sustainable Student Retention: A Holistic Perspective on the Student Dropout Problem with Special Attention to E-Learning. *DEOSNEWS*, 13(5)
- Bernard, R. M., Abrami, P. C., Borokhovski, E., Wade, A., Tamim, R., Surkes, M. A., et al. (2009). A meta-analysis of three interaction treatments in distance education. *Review of Educational Research*, 79(3), 1243-1289. <https://doi.org/10.3102/0034654309333844>
- Blomberg, G., Renkl, A., Sherin, M., Borko, H., & Seidel, T. (2013). Five research-based heuristics for using video in pre-service teacher education. *Journal for Educational Research Online*, 5(1), 90-114.
- Braun, V., & Clarke, V. (2013). *Successful qualitative research: A practical guide for beginners*. SAGE Publications Ltd.
- Brookfield, S. (1995). *Becoming a Critically Reflective Teacher*. Jossey-Bass.
- Burden, K. (2009). Online Video. In S. Mishra (Ed.), *E-learning* (pp.69- 75). STRIDE, IGNOU.
- Cherrstrom, C., Hyden, B., Boden, C., Singh, S., & Xie, L. (2024). Ed Tech in adult online learning: Facilitating andragogical program development, learner interactions, and student research. *International Journal of Adult Education and Technology*, 15, 1-17. <https://doi.org/10.4018/IJAET.355707>
- Claus, T., & Changchit, C. (2017). Technology-Infused Education: The Influence of Course Environment Factors. In L. Tomei (Ed.), *Exploring the New Era of Technology-Infused Education* (pp. 230-240). IGI-GLOBAL. <https://doi.org/10.4018/978-1-5225-1709-2.ch014>
- Copper, J. M., & Semich, G. (2014). Youtube as a teacher training tool: Information and communication technology as a delivery instrument for professional development. *International Journal of Information and Communication Technology Education*, 10(4), 30-40. <https://doi.org/10.4018/ijicte.2014100103>
- Cranton, P. (2006). *Understanding and promoting transformative learning: A guide for educators of adults*. Jossey-Bass.
- Dipon, C. H., & Dio, R. V. (2024). A meta-analysis of the effectiveness of video-based instruction on students' academic performance in science and mathematics. *International Journal on Studies in Education (IJonSE)*, 6(4), 732-746. <https://doi.org/10.46328/ijonse.266>
- Driver, M. (2002). Exploring student perceptions of group interaction and class satisfaction in the web-enhanced classroom. *The Internet and Higher Education*, 5. [https://doi.org/10.1016/S1096-7516\(01\)00076-8](https://doi.org/10.1016/S1096-7516(01)00076-8)
- Duemer, L., Fontenot, D., Gumfory, K., Kallus, M., Larsen, J., Schafer, S., & Shaw, Jr., B. (2002). The use of synchronous discussion groups to enhance community formation and professional identity development. *The Journal of Interactive Online Learning*, 1(2). <http://www.ncolr.org/jiol/issues/viewarticle.cfm?volid=1&IssueID=3&ArticleID=59>
- Freire, P. (1970). *Pedagogy of the Oppressed*. Herder & Herder.
- Gillett-Swan, J. (2017). The challenges of online learning: supporting and engaging the isolated learner. *Journal of Learning Design*, 10(1), 20-30. <https://doi.org/10.5204/jld.v9i3.293>
- GSVETLL (ΓΤΕΕΚ&ΔΒΜ). (2025). Data provided by the General Secretariat for Vocational Education, Training and Lifelong Learning following a telephone communication in March 2025.
- Hillman, D., Willis, D., & Gunawardena, C. (1994). Learner-Interface Interaction in Distance Education: An Extension of Contemporary Models and Strategies for Practitioners. *American Journal of Distance Education*, 8(2), 30-42. <https://doi.org/10.1080/08923649409526853>
- Hong, K. (2002). Relationships between students' and instructional variables with satisfaction learning from a Web-based course. *The Internet and Higher Education*, 5(3), 267-281. [https://doi.org/10.1016/S1096-7516\(02\)00105-7](https://doi.org/10.1016/S1096-7516(02)00105-7)
- Hrastinski, S. (2008). Asynchronous and synchronous e-learning: A study of asynchronous and synchronous e-learning methods discovered that each supports different purposes. *Educause Quarterly*, 31(4), 51-55. <http://net.educause.edu/ir/library/pdf/EQM0848.pdf>
- Hrastinski, S. (2010). How do e-learners participate in synchronous online discussions? Evolutionary and social psychological perspectives. In N. Kock (Ed.), *Evolutionary Psychology and Information Systems Research*,

- Integrated Series in Information Systems* (v. 24, pp. 119-147). https://doi.org/10.1007/978-1-4419-6139-6_6
- Hu, J., & Xiao, W. (2025) What are the influencing factors of online learning engagement? A systematic literature review. *Frontiers in Psychology*, 16. <https://doi.org/10.3389/fpsyg.2025.1542652>
- Immordino-Yang, M. H., & Damasio, A. R. (2007). We feel, therefore, we learn: The relevance of affective and social neuroscience to education. *Mind, Brain, and Education*, 1(1), 3-10. <https://doi.org/10.1111/j.1751-228X.2007.00004.x>
- Karakolidou, E., Leftheriotou, P., & Pavlis Korres, M. (2020). Facilitating the educational process in online environments: A study on the synchronous group advisory online meetings in the Hellenic Open University. In P. Ordóñez de Pablos, M.D. Lytras, & X. Zhang (Eds), *IT and the Development of Digital Skills and Competencies in Education* (pp.122-143). IGI-GLOBAL <https://doi.org/10.4018/978-1-7998-4972-8.ch008>
- Kyridis, A. (Ed.). (2014). *Vulnerable social groups and lifelong learning*. Gutenberg. (in Greek)
- Lara, J. A., Aljawarneh, S., & Pamplona, S. (2020). Special issue on the current trends in E-learning Assessment. *Journal of Computing in Higher Education*, 32, 1-8. <https://doi.org/10.1007/s12528-019-09235-w>
- Lin, F., & Sun, J. (2024). Lessons learned from the COVID-19 pandemic: a practical guide for designing synchronous online teaching in higher education. *Information and Learning Sciences*, 125(11/12), 897-910. <https://doi.org/10.1108/ILS-10-2023-0143>
- Literacy Information and Communication System (LINCS). (2011). *Using video in teaching and staff development*. Literacy Information and Communication System. https://lincs.ed.gov/lincs/discussions/professionaldevelopment/11videopart1_summary
- Meng, W., Yu, L., Liu, C., Pan, N., Pang, X., & Zhu, Y. (2024). A systematic review of the effectiveness of online learning in higher education during the COVID-19 pandemic period. *Frontiers in Education*, 8, <https://doi.org/10.3389/feduc.2023.1334153>
- Mezirow, J. (2003). Transformative Learning as Discourse. *Journal of Transformative Education*, 1 (1), 58-63. <https://doi.org/10.1177/1541344603252172>
- Mishra, S. (2009). Designing online learning. In S. Mishra (Ed.), *E-learning* (pp. 28-35). STRIDE, IGNOU.
- Moore, M. (1989). Three types of interaction. *The American Journal of Distance Education*, 3(2), 1-6. <https://doi.org/10.1080/08923648909526659>
- Moore, M. G. (2007). The theory of transactional distance. In M. G. Moore (Ed.) *Handbook of distance education* (pp. 89-103). Lawrence Erlbaum Associates.
- Moore, M. G. (2019). The Theory of Transactional Distance. In M. G. Moore & W. C. Diehl (Eds.), *Handbook of Distance Education* (pp. 32-46). Routledge. <https://doi.org/10.4324/9781315296135-4>
- Mutalib, M. A., Halim, N. D., & Yahaya, N. (2016). *Meta-analysis on Interaction in Online Learning*. <https://www.semanticscholar.org/paper/Meta-analysis-on-Interaction-in-Online-Learning-Mutalib-Halim/1647b4ba14260089900ab06291cd5a76a153db45>
- Navarrete, E., Nehring, A., Schanze, S., Ewerth, R., & Hoppe, A. (2025). A Closer Look into Recent Video-based Learning Research: A Comprehensive Review of Video Characteristics, Tools, Technologies, and Learning Effectiveness. *International Journal of Artificial Intelligence in Education*. <https://doi.org/10.1007/s40593-025-00481-x>
- Nikolopoulou, V. (2017). *Second Chance Schools: An innovative institution of adult education in Greece. How theory became practice and innovation an experience* (Doctoral dissertation, School of Philosophy, Aristotle University of Thessaloniki). Hellenic Archive of Doctoral Dissertations. <https://doi.org/10.12681/eadd/41207>
- Oyarzun, B., Stefaniak, J., Bol, L., & Morrison, G. R. (2018). Effects of learner-to-learner interactions on social presence, achievement, and satisfaction. *Journal of Computing in Higher Education*, 30(1), 154-175. <https://doi.org/10.1007/s12528-017-9157-x>
- Park, Y. J., & Bonk, C. J. (2007a). Synchronous Learning Experiences: Distance and Residential Learners' Perspectives in a Blended Graduate Course. *Journal of Interactive Online Learning*, 6(3), 245-264.
- Park, Y. J., & Bonk, C. J. (2007b). Is Online Life a Breeze? A Case Study for Promoting Synchronous Learning in a Blended Graduate Course. *Journal of Interactive Online Learning*, 6(3), 307-323.
- Pavlis Korres M. (2020). Designing e-learning programs. In M. Pavlis Korres & P. Leftheriotou (Eds.), *Design of face-to-face and online adult non-formal education programs* (pp. 129-206). Ypsilon/Books. (in Greek).

- Pavlis Korres, M. (2012). The Role of the Communication Tools in the Development of the Learning Group in an Online Environment. *International Journal of Engineering Education*, 28(6), 1360-1365.
- Pavlis Korres, M. (2021). Enhancing Students' Online Experience: Best educational practices unveiled by the mouse in the presence of a cat. In L. Kyei-Blankson, E. Ntuli, & J. Blankson (Eds.), *Revealing Inequities in Online Education During Global Crises* (pp. 420-446). IGI-GLOBAL. <https://doi.org/10.4018/978-1-7998-6533-9.ch021>
- Pavlis Korres, M. (2022). Facilitating learning and promoting active participation and interaction in online university courses during the Covid-19 era: Views of AUTH undergraduate students. *International Conference on Open and Distance Education*, 11, 123-136.
- Pavlis-Korres, M., & Leftheriotou, P. (2016). Building Interaction in Adults' Online Courses: A Case Study on Training E-Educators of Adults. In Kyei-Blankson, L., Ntuli, E. & Agyeman, C. (Eds.), *Handbook of Research on Strategic Management of Interaction, Presence and Participation in Online Courses* (pp. 185-215). IGI-Global. <https://doi.org/10.4018/978-1-4666-9582-5.ch008>
- Pavlis-Korres, M., Karalis, Th., Leftheriotou, P., & García Barriocanal, E. (2009). Integrating Adults' Characteristics and the Requirements for their Effective Learning in an e-Learning Environment. In M. Lytras (Ed.), *Best Practices for the Knowledge Society* (WSKS, pp. 570-584). Springer. https://doi.org/10.1007/978-3-642-04757-2_61
- Pelowski, S., Frissell, L., Cabral, K., & Yu, T. (2005). So far but yet so close: Student chat room immediacy, learning, and performance in an online course. *Journal of Interactive Learning Research*, 16, 395-407.
- Rahman, A. (2021). Using students' experience to derive effectiveness of COVID-19-lockdown-induced emergency online learning at undergraduate level: evidence from Assam. *India. Higher Education for the Future*, 8, 71-89. <https://doi.org/10.1177/2347631120980549>
- Reimers, F., & Operti, R. (2021). *Learning to build back better futures for education: lessons from educational innovation during the COVID-19 pandemic*. Unesco. ISBN:978-3-030-82158-6
- Rott, K. J., & Schmidt-Hertha, B. (2024). Transforming adult learning in the digital age. *International Journal of Lifelong Education*, 43(4), 319-323. <https://doi.org/10.1080/02601370.2024.2367395>
- Schmidt, S. (2017). What Does Emotion Have to Do with Learning? Everything! *Food Science Education*, 16(3), 64-66. <https://doi.org/10.1111/1541-4329.12116>
- Second Chance School of Chania. (2020). *Don't ever say "It's too late"* [Documentary]. 8th Chania Film Festival. <https://www.youtube.com/watch?v=PMvksItKKJA&t=14s>
- Semich, G., & Copper, J. (2017). Instructional Videos as ICT for Teacher Professional Development: Transitioning from the Traditional Classroom to YouTube. In L. Tomei (Ed.), *Exploring the New Era of Technology-Infused Education* (pp. 317-331). IGI-Global. <https://doi.org/10.4018/978-1-5225-1709-2.ch019>
- Skylar, A. (2009). A comparison of asynchronous online text-based lectures and synchronous interactive web conferencing lectures. *Issues in Teacher Education*, 18(2), 69-84.
- Tan, J., Mao, J., Jiang, Y., & Gao, M. (2021). The Influence of Academic Emotions on Learning Effects: A Systematic Review. *International Journal of Environmental Research and Public Health*, 18, 9678. <https://doi.org/10.3390/ijerph18189678>
- Tawfik, Andrew A., Giabbanelli, Philippe J., Hogan, Maureen, Msilu, Fortunata, Gill, Anila, & York, Cindy S. (2018). Effects of success v failure cases on learner-learner interaction. *Computers & Education*, 118, 120-132. <https://doi.org/10.1016/j.compedu.2017.11.013>
- Thurmond, V., & Wambach, K. (2004). Understanding Interaction in Distance Education, A review of the literature, *International Journal of Instructional Technology & Distance Learning*, [On-line]. http://www.itdl.org/journal/Jan_04/article02.htm
- Tsang, J. T., So, M. K., Chong, A. C., Lam, B. S., & Chu, A. M. (2021). Higher education during the pandemic: the predictive factors of learning effectiveness in COVID-19 online learning. *Education Sciences*, 11, 446. <https://doi.org/10.3390/educsci11080446>
- Tsiolis, G. (2018). *Research paths in the social sciences: Theoretical-methodological contributions and case studies*. ResearchGate. <https://www.researchgate.net>
- Tu, Y., Wang, Q., & Huang, C. (2025). Facilitating Students' Emotional Engagement in Synchronous Online Learning: A Systematic Literature Review. *The International Review of Research in Open and Distributed Learning*, 26(1), 261-282. <https://doi.org/10.19173/irrodl.v26i1.7732>

- Wang, Y., Cao, Y., Gong, S., Wang, Z., Li, N., & Ai, L. (2022). Interaction and learning engagement in online learning: The mediating roles of online learning self-efficacy and academic emotions. *Learning and Individual Differences, 94*, 1-10. <https://doi.org/10.1016/j.lindif.2022.102128>
- Winfield, C., Hughes, K., & Huffman, J. (2023). Non-Traditional Adult Learners After COVID-19: Applying National Standards for Online Teaching in Human Service Education. *Journal of Human Services, 42*(2), 58-72. <https://doi.org/10.52678/001c.91200>
- Wu, R., & Yu, Z. (2022). Exploring the effects of achievement emotions on online learning outcomes: a systematic review. *Frontiers in Psychology, 13*, 977931. <https://doi.org/10.3389/fpsyg.2022.977931>
- Zolkwer, M. B., Hidalgo, R., & Singer, B. F. (2023) Making educational videos more engaging and enjoyable for all ages: an exploratory study on the influence of embedded questions, *International Journal of Lifelong Education, 42*(3), 283-297. <https://doi.org/10.1080/02601370.2023.2196449>