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The Challenge of an Interactive Audiovisual-Supported Lesson Plan: Information and Communications Technologies (ICTs) in Adult Education

Constantinos Nicolaou [1,*], Maria Matsiola [2] and George Kalliris [1]

[1] Laboratory of Electronic Media, School of Journalism and Mass Communications, Faculty of Economic and Political Sciences, Aristotle University of Thessaloniki, 546 36 Thessaloniki, Greece
[2] Department of Communication and Digital Media, School of Social Sciences and Humanities, University of Western Macedonia, Area Fourka, 521 00 Kastoria, Greece
* Correspondence: nicolaouc@jour.auth.gr

Abstract: The rapid development in the fields of science, and information and communications technologies (ICTs) in recent years, as well as the COVID-19 pandemic, have brought about and continue to generate transformations in education, especially in adult education. In the present enhanced research article, an interactive audiovisual-supported lesson plan template and its non-verbal role in our psychological and mental health are presented in-depth. Applying a multi-methodological approach, this interactive communication-themed adult lesson plan was executed and researched in the framework of an interactive seminar in Greece and Cyprus. The research sample consisted of adult educators as adult learners and involved empirical research where technology-enhanced research methods were applied as qualitative action research with quasi-experiments. Specifically, the attitudes and views of an adult educators' group regarding the research interactive seminar that they participated in were re-investigated through secondary analysis. Similarly, the suitability of specific ICTs as well as whether they help or change the physical or psychological and mental health of the participants at the end of a teaching–learning procedure as a pilot case study were explored. The research results, effects and findings confirm the current debate on the employment of contemporary ICTs within the framework of the educational process of technology-enhanced learning in education (including adult education) as derived both by the literature, and by the research results, effects and findings of various other studies and research papers. Finally, this study can be used as a basis for creating and/or developing an audiovisual-supported lesson plan aimed at adult learners as an alternative approach.

Keywords: lesson plan; ICTs; television content; mass media use; teaching methodologies; technology-enhanced learning; technology-enhanced research; adult educator; generations; fatigue severity scale

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1. Introduction

In recent years, great change has been observed in many societal aspects, including the evolution of science. Among the most significant parameters for the rapid growth in the fields of science are information and communications technologies (henceforth, ICTs) as well as digitalization [1–7]. Nowadays, the employment of ICTs in science has brought about and continues to generate great changes in various fields, including education, and in particular in adult education [4,8–19]. Over the last two decades, literature and research have emphasized that the fundamental essence of ICTs is considered to be their proper and rightful employment within the education sector [20–27]. Traditional educator-centered education is long-standing in various conventional educational environments and is, unfortunately, still highly entrenched in many contemporary education systems of different levels and disciplines (including also adult education or even afterschool programs) [28–32]. Additionally, in many educational environments, the educator is still a

digitally and technologically illiterate advisor and mentor [16,28,31–34], while learners and especially learners of the younger generational cohorts seem to undertake the responsibility for their own learning process using ICT-tools to collect information as they are considered more familiar with them [16,28,31,35–37]. The COVID-19 pandemic led all education systems around the world to finally redesign their learning environments and to activate a modern technology-enhanced learning model to promote further interplay, interaction and small-group work, and utilize digital technology as a knowledge medium that both learners and educators themselves benefit from [15,38–43].

The direct benefits of ICT-enhanced learning in adult education have been well recognized for nearly six decades [44] (p. 969). In the same context, modern theoretical approaches also emphasize the significant benefits, perspectives and values offered by use-based ICTs in a regular formal or informal, hybrid, distance and/or in person as well as in an online adult teaching and learning model [8,15,45–47]. However, ICTs' implementation is not always the panacea for a successful education strategy, for example with a lesson or a lecture, a lesson plan, or a syllabus or even a curriculum. Much-desired success is up to the adult educators themselves who are able, by projecting a perfect educational technological role with ICTs facility and fluency, to provide a subjective teaching experience that will result in educational effectiveness using ICTs, allowing them to leave their imprints while creating contemporary experiences for their adult learners [8,48]. In this sense, recent literature reviews and research references have pointed out that any successful outcome of a teaching methodology really depends on the adult educators themselves [4,15,35,37,46], who should have academic background and professional experience in order to "*provide a sufficient combination of content, technological and pedagogical knowledge*" [35] (p. 4) to their scientific fields.

ICTs (including audiovisual content—sound/audio content, television content, multimodal content, etc. [49–53]) undoubtedly play a meaningful role in the success of a teaching methodology or even an essential non-verbal role in our psychological and mental health [1,4,13,14,46,54–59]. Admittedly, their use is characterized as of utmost importance in the creation of a continuous learning path that would lead adult learning processes [8,17,18]. Keeping that in mind, adult educators should incorporate the employment of ICTs whenever possible to help adult learners grasp learning ideas faster and retain them lifelong. Nevertheless, ICT-enhanced learning presupposes modern ways of approaching effective teaching, and adult educators should always be innovative in usage-based ICTs. Similarly, they should diversify effective teaching methods for the provision of quality education, considering all kinds of learning styles of adult learners as a factor that influences the optimization of the academic learning outcomes [4,60–70]. The abovementioned lead to the conclusion that ICTs employed within the framework of educational process are limited by adult educators' present difficulties, and they may be considered a challenge. This is also confirmed in literature where it is stated that educators at any educational level or specialty (including adult education or even afterschool programs) must possess a significant plethora of skills, capabilities, and abilities [1,4,19,35,46,71–75]. In the same context, they must have a positive attitude toward the effective employment of ICTs within the framework of educational processes [4,8,19,46,76–79], which is an issue that this research article will attempt to present.

The scope of this research article is to cast light on the challenges of creating and implementing a standards-based interactive adult lesson plan from and through utilizing ICTs, thus opening a new chapter on what adult learning should look like from now on. Furthermore, the style of the adult educators' contemporary professional identity as well as how their role is shaped and transformed today in the light of ICTs are among the issues of this study. This endeavor is achieved by presenting in-depth the development of an interactive audiovisual-supported lesson plan template—*research purpose* (RP), thus contributing to the existing literature but also filling the gap through a rich bibliographic literature and resources review. On the one hand, the research aim (RA), which was proposed from the beginning by the investigative authors, is obviously twofold and constituted the starting

point of this study. The primary research aim (RA1) of this study is to acquire and provide information and data that will significantly add to the qualitative quality of adult education and, more explicitly, to the utilization of ICTs within the framework of an educational process. It is a fact that today (2022), unfortunately, although we have experienced and continue to live in the COVID-19 pandemic period, the mentioned field continues to be plagued. The second research aim (RA2), on the other hand, is to outline the non-verbal role in our psychological and mental health that arises as consequence of employing ICTs in the teaching–learning procedure through an interactive audiovisual-supported lesson plan template. For this reason, therefore, a characteristic triple exploratory scope was set in order to contribute to this dual research aim of this research article. Notably, the research objectives (ROs) of the present study were the following:

RO1: The primary objective was to investigate and present the attitudes and views of an adult educators' group on the research interactive seminar that they participated in for the scope of this study;

RO2: The second objective was to examine the suitability of specific ICTs, presented in this research article through an interactive communication-themed adult lesson plan (i.e., the research interactive seminar), and finally;

RO3: The third objective was to investigate in the form of a pilot case study whether the utilization of ICTs within the framework of the educational process (in this case by way of a lesson plan) helps or changes the physical or even psychological and mental health of the participants (i.e., adult learners) at the end of the teaching–learning procedure.

In closing, it should be mentioned that the current enhanced research article is an integral part of a larger, ongoing original, innovative, multidisciplinary, and cross-cultural research project that incorporates media, audiovisual content, and education (henceforth, MACE), especially ICTs in adult education in Greece and Cyprus, which began in 2016. Additionally, in the following sections and especially in the next section (Section 2), the theoretical groundwork through a brief bibliographic review and related work of the selfless relationship among ICTs and adult education is provided. The bibliographic review and the related work were retrieved through a systematic search of literature review utilizing a combination of traditional and modern methods of finding information (such as, for example, the technology-enhanced research methods from and through the Internet—methods of finding information on the Internet, etc. [80]). This systematic search was originally implemented in the framework of the research project MACE and in the specific section of the article, a re-revised summary of the literature findings is presented. The systematic search of the literature review in the research project MACE was triggered by previous literature findings that were first presented in Thessaloniki in the context of the Panhellenic Scientific Conference on "Lifelong Learning on Lifelong Learning and Modern Society: Local Government, Education and Work" in 2015 after blind peer reviews, under the title "Modern Trends in Teaching Methodology in Adult Education" [81]. Since then, part, or revised version of the MACE's literature review has already been presented and published in a number of proceedings of various national and international conferences in Greece and Cyprus, as well as in reputable academic journals and book chapters after blind peer reviews. Undoubtedly, the literature findings that are presented in this study resulted from a certain literature review approach (i.e., meta-synthesis [82]). Subsequently, the framework of the research methodological approach that was applied is justified and presented in-depth in the immediately following section (Section 3) as a *latent research purpose* of this study. More specifically, all research stages of the research design leading to the main investigation are presented in detail. Moreover, this section additionally includes the interactive audiovisual-supported lesson plan template also used in the main investigation (Section 3.1). Afterwards, the research results, effects and findings of the main investigation and the independent pilot case study are presented, justified, and explained through discussion in the penultimate section (Section 4). Finally, the last section provides a kind of summary including the authors' perceptions as a conclusion (Section 5).

2. Theoretical Groundwork through a Brief Bibliographic Review and Related Work

The employment of ICTs within adult education, as reflected in the relevant literature, requires multiple innovative and modern skills (i.e., *multiple-multimodal skills*), capabilities and abilities by the adult educators, and therefore, contemporary approaches are needed to achieve effective teaching that will lead to enhanced learning outcomes [1,4,14,15,37,69,78,79,83–87]. Adult education is well-known to concern mostly adults as adult learners with numerous inherent, specific, or even special, distinct, and unique or diversity characteristics, intellectual workers and not only intellectuals, as well as special categories of audiences and vulnerable social groups (such as, for example, bilingual, disabled, elderly people, etc.) [8,88–95]. All of them, may originate from various generational cohorts consisting of educated or illiterate, or even digitally illiterate adult members [8,15,46]. In this day and age, adult learners usually come from the Silent Generation (people born between 1925 and 1945) [96,97], the Baby Boomer Generation (people born between 1946 and 1964) [98,99], the Generation X (people born between 1965 and 1979) (GenXer from here on) [100,101], the Generation Y (people born between 1980 and 1994) (GenYer from here on) [102–104] and the Generation Z (people born between 1995 and 2010) (GenZer from here on) [105,106] members. Research has highlighted that the members of the younger generational cohorts that include adults (i.e., GenZer and GenYer) approach information mainly from and through digital modern ICTs, and likewise, they seem to learn to the fullest in this digital technological way [15,35–37,46,107]. Additionally, it seems that several members of GenXer, as well as the younger members of the Baby Boomer Generation, can also learn via this digital technological way [15,46,108]. However, two reasonable questions arise—what about the way previous (older) generational cohorts learn, and how should adult educators deal with that? The answer to both two reasonable questions may be found in the designed ICT-supported curriculum or lesson plan itself or codesign process or even textbook-focused material based on real-world Internet applications and services that are used and applied by the adult educators within the context of didactic process (i.e., lecture or course and training program or even educational seminar) [15,16,35,46,109–119].

The global literature suggests that in a conventional learning environment, all educators (including adult educators) should own a well-organized and well-prepared lesson plan before implementing a lecture to their learners (including, of course, adult learners) [15,46,111,114,115,117]. Nowadays, although there is an important and valuable literature review and numerous empirical research on the proper employment of ICTs through a lesson plan or more broadly within the framework of educational path [4,12,16,35,46,120,121], unfortunately, many educators tend to misuse ICTs [19,28,31,76]. Notably, on the other hand, today's adult educators, due to the fact that they had insufficient or incomplete education in their studies after high school (e.g., in higher education at undergraduate or postgraduate level), or even no further training by their organizations (i.e., structures/institutions of adult education and training), are unable to cope with a lesson plan that can be supported by ICTs [28,31,76,122].

ICTs a few decades ago in adult education were considered the traditional radio (1920) and the traditional television (hereinafter cited as TV) (1957), and they were referred to as new technologies [8] (p. 76). In our time, contemporary ICTs are considered (a) any kind of audiovisual media and communication devices and technologies (i.e., audiovisual media technologies), applications (e.g., social media—such as social networking sites; SNSs, online social networks; OSNs, audiovisual and sound platforms, etc. [3,6,7,123–126]) or even services from and through the Internet (i.e., online service/s); (b) mobile technologies; (c) new and modern media (such as, for example, news portals, Internet or web-radio and Internet or web-TV, multimedia portals media-service provider, etc.); and so on [3,6–8,49,51,123–131]. Generally, ICTs in modern adult education are used or employed mainly as teaching educational techniques as well as technological and educational communication tools within the context of didactic process (such as, for example, by implementing an educational intervention or a lesson plan), just like in conventional education (e.g., secondary, or higher education, etc.) [4,8,132]. The reason is because they constitute a

paramount factor in achieving technology-enhanced learning as they play a critical role in the success of an active teaching–learning procedure [8,37,133,134].

In conclusion, based on the above, it may be argued that the effective utilization of ICTs in adult education could be perhaps the most vital element in uninterrupted learning journeys, experience, and knowledge. The reason is very clear, since modern adult education includes a complete range of formal, non-formal, and informal teaching–learning procedures as defined nowadays [8,78,79,81,135,136]. Therefore, adult educators should always innovate in the employment of ICTs and diversify the methods for effective teaching to provide quality in adult learning in addition to meeting the corresponding criteria of each educational level or even specialism, thus giving equal opportunities to adult learners [8].

3. Research Approach Methodology—Research Methods, Audiovisual Content, and ICT-Supported Materials

This enhanced research article contains empirical research, while it can further be considered as secondary research because, in addition to using and analyzing primary research data, it also uses and applies secondary analysis to secondary research data—therefore, a meta-analysis is applied. All research and literature data and information, as well as multimodal content and materials used in this study belong to the research project MACE, as already mentioned above, part of which has already been presented and published in several proceedings of various national and international conferences in Greece and Cyprus, as well as in reputable academic journals and book chapters after blind peer reviews. The present research of this enhanced research article was conducted in Greece and Cyprus during the period 2019 to 2020 (i.e., the original research). The selection of these two countries was made because they have similar polarized pluralistic socio-cultural environments as well as a recent and common socio-political framework of economic crisis and austerity [15,128,137–139]. Admittedly, they have also experienced exactly the same media socio-phenomena [15]. Moreover, they use the same official language (i.e., the Greek language), and they have an identical cultural background as well as culture, customs, manners, religions, and attitudes [15,128,139]. Therefore, it is the ideal field for one to explore the challenge of an interactive audiovisual-supported lesson plan.

The condition of a different, a new research analysis began at the end of 2021 when in the field of education (including adult education), a recent growing and rising interest in new, more modern methodologies and trends, educational technological environments and ICTs was reborn due to the COVID-19 pandemic. Since all information, primary research data and research stages would have to be reviewed and re-evaluated individually to deliver reliable new research results, effects and findings, the overall period of the secondary analysis and the reinterpretation of the primary research data received took longer than expected; thus, at this point, the new research results, effects and findings are ready to be presented focusing on the challenge of an interactive audiovisual-supported lesson plan and following a combination of traditional and modern rules of scientific soundness [80,140–149]. To accomplish this venture, two new research hypotheses were recruited dedicated in testing their statistical significance in the context of meta-analysis. These research hypotheses are exclusively related to parameters converted to the implemented interactive audiovisual-supported lesson plan (something to be discussed below), aiming of validating or refuting it:

H1: *It is expected that there will be no significant statistical difference in attitudes and views between the country of origin of the research sample; and finally*

H2: *It is expected that there will be a significant statistical difference in attitudes and views between the gender of the members of the research sample.*

The research design was quasi-experimental with four qualitative experiments constituting the main investigation. Likewise, a pre-pilot study and a three-phase pilot survey which were implemented prior to the main investigation were also included, as well as an independent pilot case study which was carried out concurrently with the main in-

vestigation. To summarize, this research design was not at all accidental because the research project MACE as original and innovative as mentioned above, also aimed to implement a method of development and research (also well-known as methodological development or even as multi-methodological approach) [150]. Therefore, to recap, the pre-pilot study was implemented aiming at evaluating the research protocol used before conducting the main investigation and the independent pilot case study. On the other hand, the implementation of the pilot survey was deemed necessary to determine whether it could be applied to a group of adult educators as part of a form of educational training / education for their professional development (i.e., in the main investigation)—a *latent research aim* of the pilot survey. Now regarding the independent pilot case study (pilot case study from here on), it should be mentioned that it was implemented for the first time both Greece and Cyprus, while, in general, this particular cross-cultural research study is perhaps the only one of its kind (i.e., during its planning and implementation, it was the only one—based on the systemic implementation that took place in the framework of the research project MACE). The most important reason for implementing and including this pilot case study is to further support the research results, effects, and findings from the main investigation to reach a comprehensive conclusion in this study. In order the potential readers and researchers to better understand this multi-methodological approach through the chronological implementation of the various research stages of the above research design, the research timeline was created in the form of a chart, presented as Figure 1. The research timeline was created through Microsoft PowerPoint 365® (version 18.2210.1203.0) and digital processing in Microsoft Paint (version 21H2), while it depicts the research stages such as (a) the *Pre-pilot Study* (1); (b) the three-phase pilot survey—*Pilot Survey* (PS) (2); (c) the *Main Investigation*—four qualitative experiments (QE) (3); and (d) the *Pilot Case Study* (4) (Figure 1). In addition, the research timeline includes the research stage of the initial evaluation of the new videos—something that will be discussed later (Figure 1).

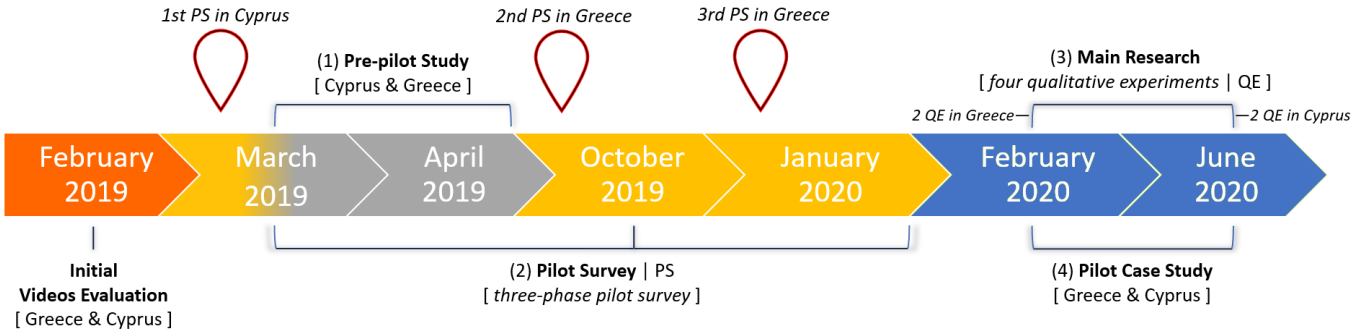

Figure 1. Multi-methodology approach through research timeline (February 2019 to June 2020).

Among the included advantages of this study is the fact that the qualitative experiment method was also applied utilizing technology-enhanced research methods as qualitative action research. The followed research methodological approach is a modern and innovative research methodology that uses non-widespread research methods [80,147,151–153], aiming at their dissemination and further use. These types of research processes have emerged from the redistribution, re-evaluation and reintegration of the traditional ones that currently constitute modern research methods [80,147]. At this point, it should be noted that this research approach methodology is the first of its kind in both countries as well as abroad, and its research effects and findings can be used to enrich the thematic scope of the employment of ICTs in adult education.

In recapitulating, the main investigation includes four qualitative experiments (hereinafter referred to as experiment/s) in the form of research interactive seminars (i.e., a kind of an interactive teaching) for educational effectiveness utilizing specified ICTs (something that will be discussed in Section 3.1) demonstrating the usefulness of interactive technology through the implementation of modern audiovisual media theory in education [4], and,

more explicitly, the application of *differentiated teaching methodology* [4] (p. 7). This theory was created in the framework of the research project MACE, aiming to summarize the various implementations of audiovisual media as educational techniques and communication tools in education to provide technology-enhanced learning [4]. Concerning the four experiments in the main investigation—two experiments of the main investigation were implemented in Greece before the beginning of the COVID-19 pandemic in February 2020 (one in Athens and one in Thessaloniki) and the other two were in Cyprus at the end of the first wave of the COVID-19 pandemic, when the measures were gradually revoked and it was believed that the pandemic was over in June 2020 (one in Nicosia/Lefkosia and one in Limassol/Lemesos) (Figure 1)—are also considered qualitative due to their form as well as because they create a kind of case study. Admittedly, the main investigation is also characterized as a form of action research [154–157] due to the fact that (a) the lead researcher correlating to the participants in the framework of interactive teaching as an adult educator (i.e., the lead researcher / adult educator interacted with the participants as facilitator through a continuous dialogue)—in this case it is considered that classroom action research (CAR) is applied [158]; (b) the *differentiated teaching methodology* is applied [159] (p. 13); and (c) it was used for educators' professional development [159–164].

Since this study uses non-widespread research methods, just like the original research from the research project MACE (prototype research from here on), this section partly follows a detailed and in-depth description of the research methodological approach applied to help potential readers and researchers who are not familiar with the specific procedure. Furthermore, this is carried out to aid in the comprehension of this modern and innovative research methodology, as a *latent research purpose* of this study. Summing up, this study was conducted according to the rules and procedures suggested by the "Committee on Research Ethics and Conduct" of the Aristotle University of Thessaloniki (hereinafter called the AUTh) in Greece, the guidelines of the Helsinki ethics protocol [165] and the relevant European provisions on the use of personal data (also known as; a.k.a. General Data Protection Regulation—GDPR) [166], as with the prototype research.

The rest of the section is organized into five subsections. The first subsection presents the interactive audiovisual-supported lesson plan template in-depth (Section 3.1). The next subsection presents the research protocol in detail (Section 3.2). In the following subsections, Section 3.3 presents the pre-pilot study, and then Section 3.4 presents the pilot survey. This section concludes with Section 3.5, where it presents the research data processing and analysis. Finally, what we hope is that all the above and the following information will be a considerable guide for those who would like to apply this new methodological procedure or use these proposed research methods in their future work.

3.1. Research Interactive Seminar: The Teaching Methodological Approach and Strategy behind the Lesson Plan—RP

The lesson plan used in the main investigation in the form of research interactive seminars (hereinafter referred to as final lesson plan) was based on a previously evaluated lesson plan (original lesson plan from now on) that had been already used and applied in various educational or even research environments. More concretely, the original lesson plan was prepared in a workshop format entitled "Life Skills: The importance of Non-Verbal Communication" [167] and was first presented in Thessaloniki in the context of the Panhellenic Conference with International Participation on "Re-Reflections on Childhood" in 2014 after blind peer reviews [44] (p. 970). Since then, the original lesson plan was also used in the context of the various actions of the Cyprus Pedagogical Institute (Παιδαγωγικό Ινστιτούτο Κύπρου/ΠΙΚ in Greek language) (Nicosia/Lefkosia, Cyprus) during the academic years 2013 to 2016 [168] (pp. 307–309). Likewise, in the research project "Non-Verbal Communication" (henceforth, NVC) in the form of an interactive educational training/education in Cyprus and Greece from 2014 to 2020 [169] (pp. 169–170).

The educational methodological approach that was applied to the original lesson plan was the edification and differentiation of teaching practices in mixed class, as proposed

by Koutselini-Ioannidou [170]. Additionally, the theoretical approaches of adult education as proposed by Courau [88] as well as the teaching methodology employing means of communication (i.e., audiovisual media technologies) as proposed by Kanakis [171] were applied. Similarly, the design was also based on Ioannidou-Koutselini's micro-level curriculum development [172] combining non-verbal behavior as proposed by Vrettos [173] and applying Maslow's theory of motivation and personality [174] as well as Argyle's theory of the psychology of interpersonal behavior [175]. Regarding the final lesson plan, it extended the above educational methodological approach by accurately applying (a) the theory of audiovisual media in education as has been proposed through the framework of the research project MACE [4] as well as (b) the five sequential stages of group development of Caple's theoretical model (i.e., the orientation, conflict, integration, achievement, and order stages) [176]. Moreover, the new educational methodological approach was implemented through the *digital storytelling methodology* [177] using the *differentiated teaching methodology* [44] (pp. 970–972). Likewise, the 3P (i.e., preage, process, and product) model learning in the classroom [178] (p. 397) was also implemented, which is mostly based on von Glasersfeld's theory of constructivism [179], where learners of any age can learn anything [180,181]. The main educational activities of the final lesson plan were identical to those in the original lesson plan—(a) *exercise of representation*; (b) *exercise of memory activation*; (c) *brainstorming*; (d) *suggestion*; (e) *guided didactic discussion and learning discussions with experiential education*; (f) *awakening and plenary debate*; and finally (g) *meta-cognitive knowledge and evaluation meta-cognitive skill* [44] (pp. 971–972) (something that will be discussed later). Admittedly, both the original and final lesson plans also had the same duration (i.e., 90 min) and the same basic equipment/technological and educational communication tools (hereinafter referred to as educational tool/s) (i.e., ICT-tools: personal computer; PC, overhead projector—projected visual materials via presentation software, video projection—video, speakers—sound/audio media, as well as board and markers) [44] (p. 970).

In the light of the above, at this point it should be mentioned that the theory of audiovisual media in education (hereinafter referred to as audiovisual theory) summarizes the modern factors for effective ICTs integration [4]. Similarly, the possibilities of ICTs integration from and through teaching methodologies and methods within the context of didactic process in adult and higher education as well as in the field of media studies [4,182]. Notably, it is grounded on Knowles's self-directed learning theory [183] as tailored by Hammond and Collins [184], as well as on Knowles's andragogy theory [185]. Undoubtedly, the new audiovisual theory was suggested mostly for adult media studies learners and targeted at the educational process quality utilizing technology-enhanced learning [4]. Additionally, on the other hand, following the relevant literature [51,116,120,186–190], the *digital storytelling methodology* focuses on the application of digital storytelling (*narration* form here on) through educational techniques which is commonly created and used from and through ICT-tools in order to bring a narrative to life utilizing audiovisual content [4,8,177]. Despite what we already know about the influence of the ICTs in education and ICT-supported educational techniques [4] (p. 8), the most recent literature has also shown that their effectiveness is determined by the educational needs of the learners themselves [1,4,8]. Regarding the *differentiated teaching methodology*, it is an ICTs and audiovisual technology-supported teaching methodology and "*can be applied to mixed capacity faculties by providing challenging learning experiences*" [4] (p. 7). However, differentiated teaching practice cannot be found in ready-made teaching recipes or lesson plans [191], because teaching–learning procedure should be tailored based on the specific factors that determine learners' needs [4,191].

The purpose of the research interactive seminars (hereinafter referred to as seminar/s), aimed at adult educators as adult learners was to improve effective communication skills from and through non-verbal communication. Literature and research have highlighted that improving communication skills gives us the opportunity to cultivate influential and powerful techniques in the real or even virtual or digital world as well [167–169,192–195]. The adult educators attending one of these seminars will be provided the opportunity to be

guided by the lead researcher/adult educator (hereinafter referred to as instructor) through communication techniques to learn even more about these non-verbal communication skills as well as other modern soft skills (such as, for example, critical thinking, crisis management, teamwork, etc.) while utilizing ICTs [46,167,169,196]. Furthermore, they will be able to practice in a secure environment through media engagement and narration employment, which emotionally help learners of any age as they develop emotional skills [197–199], using television content. Additionally, narration allows them to construct a specific meaning on a personal level as well as to develop their literacy skills [197–199]. At the end of each seminar, adult educators will also be better prepared for any self-exhibition since they will be more experienced and equipped with *multiple-multimodal skills*, such as modern communication skills, presentation skills, feedback and listening skills, life skills, and so more [167–169,192].

The main ICT-tool used in the seminars involved visual media, and more precisely the projected visual materials via presentation software package (i.e., the presentation). In this case the presentation software package chosen to provide advanced and improved interactivity was Microsoft PowerPoint 2007 (version 12.0). The presentation used in the seminars (hereinafter referred to as new presentation) was based on the presentation presented at the abovementioned conference in Thessaloniki in 2014 [167] (hereinafter referred to as original presentation). Furthermore, in the new presentation, the existing multimodal content and material (such as, for example, videos, sound/audio media spots, podcasts, etc.) was enriched and revised, aiming at providing a better understanding of the theory in practice, and considering the special and inherent characteristics of the audience that would watch it. The original multimodal content and material of the original lesson plan was updated and/or upgraded with a rich set of audiovisual contents (such as, for example, snapshots from television content, music/songs, sound effects—a.k.a. SFX, music covers and investments, etc.) after performing video editing or even sound/music editing and mixing, or creating brand new ones through video production and montage. The videos that have been revised or the new ones that have been created are the following [44] (pp. 971–972):

1. A video that consists of two joined videos. The first video was created in the framework of the research project MACE and is a *welcome video* (about the organizer and the organization—in this case the Laboratory of Electronic Media, School of Journalism and Mass Communications, Faculty of Economic and Political Sciences, AUTh; Greece) consisted of simple and panoramic edited shots from downtown Thessaloniki (Greece), the AUTh campus, the neoclassical building of the School of Journalism and Mass Communications of AUTh in the city center, and the old premises of the Laboratory of Electronic Media of AUTh with the TV, audio and radio studios at the Pavilion 1 of the Thessaloniki International Exhibition & Congress Centre—the new and modern premises of the Laboratory of Electronic Media are now located on the AUTh campus from the beginning of 2022. Additionally, this video is also enriched with music/songs and many SFX, as a music investment. The second video is a revised video from the original lesson plan in two versions with different music/song. This original video consisted of a collage of images/pictures/photographs (hereinafter referred to as photo/s) with music/song. The new videos consist of additional photos, the music/song has been edited and changed in the second one, while all the photos and the flow in the video now contain the same digital filters. Summing up, the final version of the dual video with the first version of the second video can be found in Appendix A;
2. Small videos snapshots from Sailor Moon of Toei Animation (an animation series from 1992 to 1995) with (a) the authentic and classic Greek dubbing by 'SPK Video Film Television' on behalf of the private TV channel ANT1 Greece in Greece beginning in 1995—this animation series was also broadcast on the homonymous private Greek-Cypriot TV channel ANT1 Cyprus and the former private local Greek-Cypriot TV channel VOX TV in Larnaca/Larnaka in Cyprus; (b) the Greek dubbing by the private

TV channel STAR in Greece from 2001 to 2004; and (c) the Greek amateur/non-professional dubbing by the Internet team Wings of Destiny (henceforth, WoD) (https://wingsofdestiny.forumotion.net/, accessed on 24 October 2022) (since 2008); (d) the original Japanese dubbing by Toei Amination and (e) the American/English dubbing by DiC Entertainment in North America in 1995;

3. Video with simple and panoramic shots from the romantic city of Thessaloniki (Greece) and specific well-known and famous snapshots from various foreign television series and productions as well as movies. This video was production-based on the 11-min produced video of "*Non-Verbal Communication—The Documentary* by R.O.D. Films (2010)" (Appendix B). The various television and movie contents used as snapshots in the new revised video are (a) (i) *Sex and the City* from HBO (1998–2004), (ii) *The Walking Dead* from AMC (2010–2022), (iii) *Coven* (2013–2014) and *Apocalypse* (2018) of *American Horror Story* (2011–) from FX, and (iv) *9-1-1* (2018–) from FOX—television series; (b) (i) *RuPaul's Drag Race* (2009–) from LOGOtv/VH1, (ii) *America's Next Top Model/ANTM* (2003–2018) from UPN/The CW/VH1, (iii) *Eurovision Song Contest 2019* by EBU (2019), (iv) *Eye Contact* by Ten Twenty Films (2012), and (v) *Non-Verbal Communication—The Documentary* by R.O.D. Films (2010)—television productions; and (c) (i) *300* (2006), (ii) *Mean Girls 1* (2004), (iii) *Sex and the City 1* and *2* (2008 and 2010), (iv) *A Thousand Words* (2012), and (v) *Clueless* (1995)—movies. Finally, the video was also enriched with music/songs, SFX, and Greek voice-over/narration through music production and editing. The final version of this video can be found in Appendix C;
4. Small edited videos snapshots from well-known Greek television series (which have been shown or continue to be shown in Greece and Cyprus), such as (i) the sequel of the series *S' Agapo M' Agapas/I Love You, You Love Me* (*Σ'αγαπώ Μ'αγαπάς* in Greek language) (2000–2002) production of the private TV channel MEGA Greece from the pay-TV platform of Greek telecommunication provider COSMOTE TV (2019–2020) (the new episodes are also available through audiovisual platform YouTube in both Greece and Cyprus), (ii) *Sto Para 5/In the Nick of Time* (*Στο Παρά 5* in Greek language) (2005–2007), *Ichni/Wake* (*'Ιχνη* in Greek language) (2007–2008), and *Dolce Vita* (*Ντόλτσε Βίτα* in Greek language) (1995–1997) from private TV channel MEGA Greece (which was also broadcast on the former homonymous private Greek-Cypriot TV channel MEGA Cyprus—now OMEGA from 2018), as well as (iii) *Konstantinou and Elenis/Constantine's and Helen's* (*Κωνσταντίνου και Ελένης* in Greek language) (1998–2000) from the private TV channel ANT1 Greece (which was also broadcast on the homonymous private Greek-Cypriot TV channel ANT1 Cyprus); and finally
5. Video with snapshots from the Greek production of *Greece's Next Top Model 2/GNTM 2* (2019) from the private TV channel STAR in Greece (which was broadcast simultaneously in Cyprus by the private Greek-Cypriot TV channel OMEGA). Specifically, the video had been enriched with music/songs, SFX, and Greek voice-over/narration. The final version of the produced video can be found in Appendix D.

Final Lesson Plan—Main Educational Activities [44] (pp. 971–972)

1. *Exercise of representation*—The educational activity is realized with the help of an edited video (comprised of two parts) via unregistered embedded hyperlink (URL address) from the audiovisual-hosting platform YouTube (Appendix A) that evoke memories or even *nostalgia*, *feelings*, *affects*, and *emotions* [58,200,201] applying the educational technique of *distancing* [4] (p. 6), as well as the application of the educational technique of theatrical performance as a role-play (which is a common method in communication skills training [195]) from and through *narration* [177];
2. *Exercise of memory activation* (i.e., bringing back memories of nostalgia [202] or even creating *willful nostalgia* [203–205])—The educational activity is realized using audiovisual content through short duration edited videos snapshots from anime series Sailor Moon;
3. *Brainstorming* (with the terms "communication" and "non-verbal communication")—The educational activity is realized employing visual media, such as, for example,

projected visuals materials through presentation software (in this case, as mentioned above, via Microsoft PowerPoint 2007), and is completed by working in teamwork through discussion and/or working through issues together with the instructor when needed [4,81,136];

4. *Suggestion*—The educational activity is realized using *narration* [177] for non-verbal communication by showing an edited video (Appendix C);
5. *Guided didactic discussion and learning discussions with experiential education*—The educational activity is carried out with the use and analysis of television content and other media content (e.g., cartoons/animated movies, TV news reports, interviews from TV entertainment shows, etc.) through various short duration edited videos, in order to capture the new knowledge (i.e., the non-verbal communication) through their own previous knowledge and experiences [88,204];
6. *Awakening*—The educational activity is carried out (a) employing the online based on the game learning platform "Kahoot!" (a free online learning platform/interactive website) by creating a 10-question test on non-verbal communication as a classroom game [206,207]; as well as (b) through plenary debate [4,81,136], and finally;
7. *Meta-cognitive knowledge and evaluation meta-cognitive skill*—The final educational activity is realized using the edited video (only the second part with the second version from the first educational activity).

Undoubtedly, all sound/audio media spots from the videos (i.e., video scenes or video with scenes) were also subjected to special digital processing methods so that the original audio material reached its final optimized form, applying contemporary non-destructive and non-linear techniques [109], and taking into account the quality of learning (QoL from here on) parameters (e.g., the physical characteristics of the initial material, the poor material that can lead to a negative emotional response, etc.) [50,52,109,208–210]. More concretely, high-quality digitization parameters (i.e., 44.1 kHz sampling, 16-bit quantization, and error correction) were applied for the main audio format, while all recordings for the voice-overs/narrations were made in the professional studios of the Laboratory of Electronic Media of AUTh, with the ultimate goal of the necessity of avoiding any unusual kind of sound degradation such as reverberation and background noise [35,208,211–213]. Additionally, the sound/music editing and mixing were performed using WaveLab (version 7) and Audacity (version 2.1.3) music software suites, while the video editing and post-production using (a) Magisto by Vimeo (version 6.2.4.20511) mobile application; (b) Freemake Video Convert (version 4.1.10) and Movie Maker (version 10) software applications; (c) as well as YouTube Studio online service [44] (pp. 971–972). At this point, it should be noted that the three new and/or upgraded and/or updated videos were created with the intention of being used in the framework of the main investigation—(a) the dual video for the exercise of representation; (b) the video for the exercise of the suggestion; and finally (c) the video with snapshots from *GNTM 2*—were initially evaluated and judged in February 2019 by three Greek experts in the field of music and radio or even TV production with many years of experience in the audiovisual industry, as well as by six adult educators (18 years-old and older) from Greece (three adult educators) and Cyprus (three adult educators), before being used for the pilot survey and then in the main investigation (i.e., the research stage of "Initial Videos Evaluation") (Figure 1).

Finally, it should be mentioned at this point—as in the research project "Audiovisual Media Communications in Media Studies of Radio Courses" (hereinafter, AMC-MSRC) [37,46] which is also part of MACE's research project—that the instructor who performed all the seminars was an experienced adult educator, who is also a trainer of adult educators, certified public relations professional, journalist, and music producer/sound engineer [46] (p. 163). His studies focus on the fields in communication, public relations, journalism, music, and sound recording, as well as in education, curriculum, and instruction [46] (p. 163). Also, he has over 10 years of experience in both Cyprus and Greece in teaching (verbal and non-verbal) communication, journalism, electronic media, and teaching methodology courses in adult education and higher education, and in the train-

ing/education of executives for primary and secondary general education [46] (p. 163). Likewise, in the field of mass media and media industry as a (a) journalist in print and electronic/digital press, as well as radio media; (b) social media manager, content creator, and copywriter; and finally (c) music producer, sound engineer, and disc jockey (DJ), with over 1000 h on air, and many radio and non-radio (i.e., music and/or TV) productions [46] (p. 163). Moreover, he has also given his voice in TV and radio commercial spots and in cartoons/animated movies as a voice-over artist [46] (p. 163).

3.2. Design and Creation of the Research Data Collection Forms: Research Protocol

Research data collection was performed using an innovative research protocol which functioned as a *measuring instrument*. Notably, the research protocol of the prototype research consists of (a) a specially designed written questionnaire (hereinafter called the Evaluation Form) which was used in the main investigation and (b) a questionnaire evaluating the scale of measurement of general fatigue (i.e., a fatigue questionnaire) which was used in the pilot case study respectively [44] (p. 974); which were completed anonymously after, or before and after the seminar (something that will be discussed below). It was considered necessary that all the questionnaires should be filled out anonymously, because based on the literature, in this case the respondents answer honestly without being influenced by the researcher and the research results become highly reliable [214].

The Evaluation Form was based on a previous form which was re-tailored. More precisely, in this particular case, the form used in the framework of the research project NVC was selected [169] (p. 170). This previous form is based on the tried and tested "feedback form" of the Cyprus Pedagogical Institute, which is used for various applications of the institution, while it has also been widely used in various surveys and studies for research papers in both Cyprus and Greece [15,37,46,168,169,215]. Regarding the creation of the new form, it consisted of quantitative (using the Likert scale [216,217]) and qualitative queries too. In the same context, it integrated and customized parameters from the dynamic model of educational effectiveness, as proposed by Kyriakidis and his collaborators (i.e., orientation, structuring, modelling, application, questioning, assessment, management of time, and classroom as a learning environment) [218] (p. 13). Summing up, its final form was also amended to be relevant to the fields of prototype research, resulting in the following three sections divisions:

1. The first section consisted of 11 parameter questions (hereinafter referred to as parameter/s) in quantitative format with a five-point Likert scale based on the degree of satisfaction of quality (1 = 'VERY POOR' to 5 = 'EXCELLENT') [44] (p. 975). In order to better present the research data and interpret the research results, effects and findings [219] of this study from the re-analysis, the parameters were presented into three parts. Notably, in the first two parts the parameters were divided, while in the third part only the parameters associated with the "audiovisual-supported lesson plan" were included for the purpose of its validation or refutability. The first part included seven parameters based on the "organization of acquired knowledge" in relation to the "expectations", the "organization", the "interesting suggestions", the "discussion time", the "development issues" (if they were interesting), the "questions/answers" at the end of the seminar, and the "knowledge" acquired (i.e., the theoretical background investigation). Subsequently, the second part included four parameters based on the "spatial technical/logistical infrastructure" in relation to the "time" (i.e., the time conducted), the "venue", the "period" (when it took place), and the "educational tools" (i.e., the ICT-tools) which were used in the seminar. Finally, the third part included four parameters associated with the "audiovisual-supported lesson plan", which are the "organization", the "interesting suggestions", the "development issues" (if they were interesting), and the "educational tools" (i.e., the ICT-tools) which were used in the seminar;
2. The second section was an open-ended question (i.e., as qualitative format) concerning the views of the research sample, the provision of feedback, the recovery of the

problems and the evaluation of possible solutions for the seminar utilizing ICTs (i.e., comments or even suggestions) [44] (p. 975). It is well-known that an open-ended question allows participants to contribute as much detailed information as they wish [140] (pp. 184–185); and finally

3. The third section addressed questions about the profile and demographics (i.e., *gender*—male, female, and other; as well as *age groups*: 18–24 years old—GenZer, 25–31 years old—GenZer and GenYer, 32–38 years old—GenYer, 39–45 years old—GenYer and GenXer, 46–52 years old—GenXer, 53–59 years old—GenXer and Baby Boomer Generation, 65 years old and older—Baby Boomer Generation, Silent Generation, etc.) of the research sample [44] (p. 975).

On the other hand, the fatigue questionnaire constituted the fatigue severity scale (hereinafter called the FSS) created by Krupp and her collaborators [220], consisting of nine questions (Appendix E) (henceforth, FSS Form). The FSS Form was developed to measure fatigue in patients with multiple sclerosis and systematic lupus erythematosus [220], while subsequently it has been widely used in various psychometric surveys and studies for research papers worldwide. The questions (hereinafter cited as statement/s) are graded on seven-point Likert scale (1 = 'strongly disagree' to 7 = 'strongly agree') and the FSS score is the average values of all statements' scores. Although FSS Form is available in Greek language (after having implemented the academic method of translation and compensation [221]—i.e., translation to Greek and back) [222,223], in this case the proposed procedures and strategies for rendering culture-specific concepts (henceforth, CSCs) [224] and allusions were followed respectively. Specifically, the translation process was applied as proposed by the Scientific Advisory Committee (SAC) of Medicine [225,226] in combination with the practices proposed by a team at International Society for Pharmacoeconomics and Outcomes Research (ISPOR) [227] and the guidelines of the World Health Organization (WHO) [228].

3.3. Pre-Pilot Study: Goals and the Participation Sample

After the research protocol was created, it was decided to evaluate it immediately through interviews in order to further ascertain its effectiveness and applicability prior to its use in the framework of the main investigation and the pilot case study implementation, following all relevant guidelines and tests suggested by the literature [140,142,143,146,229]. According to the research timeline (Figure 1), this evaluation was implemented in the first stage of the research design in the pre-pilot study. Beyond checking effectiveness and applicability, an additional goal of the pre-pilot study was also to identify or correct any additional errors in order to make the necessary corrective interventions in a timely manner [140] (p. 197). Likewise, to achieve a kind of dual cross-cultural adaptation, due to the fact that the prototype research, as mentioned above, would be conducted simultaneously in two countries, as well as for the first time. Due to the aforementioned, the adult participants of the pre-pilot study had to be sampled by three specific criteria such as being adult educators in a formal and/or informal settings, coming from Greece and Cyprus, as well as having the Greek language as their mother tongue (i.e., natives of the language) or being able to communicate fluently, both orally and in writing; thus, convenience sampling was applied.

The final sample who participated in the pre-pilot study was 22 Greek or Greek-Cypriot active adult educators (18 years-old and older) from different cities of Cyprus (i.e., Nicosia/Lefkosia and Limassol/Lemesos) and Greece (i.e., Thessaloniki, Drama, Alexandroupoli and Heraklion—Crete) (12 active adult educators from Cyprus and 10 active adult educators from Greece) [44] (p. 975), using the phenomenological methodological tool of the *unstructured interview method* [230] through conventional and modern media [80,144,147,148,231], and following the *cognitive debriefing process* (i.e., as a kind of *testing* [146]) [140] (p. 197). These adult participants were selected through a special digital list (i.e., an e-list) of volunteers with adult educators and adult learners from Greece and Cyprus in February 2019 (something that will be discussed at length below in Section 4.1),

following all Internet sampling rules [141] (pp. 59–63) and the relevant privacy issues in Internet research [141,232]. All adult participants signed the informed consent protocol in writing or electronically before conducting the audio-recorded interview. At the start of the audio-recorded interview, the participants were reassured that their identity, sensitive demographic information, and other personal information would be kept confidential. To further ensure confidentiality and anonymity, the participants' names were changed to ancient-Greek names. These names were given by the participants themselves to describe themselves at the end of the audio-recorded interview in the framework of the applied *hermeneutic phenomenological approach* adapted Heidegger's method [233]. All names were inspired by Greek mythology as well as ancient Greek and Cypriot history up to the Byzantine period; *Aristotle* (*Αριστοτέλης* in Greek language), *Athena* (*Αθηνά* in Greek language), *Antigone* (*Αντιγόνη* in Greek language), *Pericles* (Περικλής in Greek language), *Euterpe* (*Ευτέρπη* in Greek language), *Homer* (*'Ομηρος* in Greek language), *Penelope* (Πηνελόπη in Greek language), *Leonidas* (Λεωνίδας in Greek language), *Melpomene* (*Μελπομένη* in Greek language), *Calliope* (*Καλλιόπη* in Greek language), *Hera* (*'Ηρα* in Greek language), *Jocasta* (*Ιοκάστη* in Greek language), *Aesop* (*Αίσωπος* in Greek language), *Asclepius* (*Ασκληπιός* in Greek language), *Phemonoe* (*Φημονόη* in Greek language), *Hippocrates* (*Ιπποκράτης* in Greek language), *Hypatia* (*Υπατία* in Greek language), *Bendis* (*Βένδις* in Greek language), *Apollo* (*Απόλλωνας* in Greek language), *Polymnia* (*Πολύμνια* in Greek language), *Hephaestus* (*'Ηφαιστος* in Greek language), and *Demo* (*Δημώ* in Greek language) [28,31].

In closing, it should be mentioned that this pre-pilot study is also part of the first phase of the three-phase main research of the prototype research, which investigates the profile and professional identity of Greek and Greek-Cypriot adult educators in a three dimensional—*visual-centric*, *technological*, and *multimedia*—era [28,31]. Finally, the pre-pilot study initiated in March 2019 and was concluded in April 2019, and the conclusions that emerged were that (a) there were no ambiguities in the wording of the questions of all the questionnaires as well as that (b) the questions had not caused any fatigue or irritation, and finally that (c) it did not take more than 5 min (on average) for all questionnaires to be answered [44] (p. 975). In addition, the most significant research finding that emerged from the above procedure is that the adult educators underlined the value of the Evaluation Form, which can also be considered as a *self-evaluation tool* [28,31].

3.4. Pilot Survey: Goals and the Participation Sample

The three-phase pilot survey began in March 2019 and ended in January 2020 (Figure 1) with the participation of 40 adult volunteer trainees (18 years-old and older) from Cyprus and Greece as adult learners [44] (p. 973). This pilot research sample, based on the traditional experiment method literature, is considered acceptable [142,143] and conceptually valid [140] (pp. 141–145), while convenience sampling was again applied. Each participant signed the written informed consent protocol so that they could participate in the respective phase of the three-phase pilot survey. The aim of the pilot survey, which was set out from the beginning, was twofold. Thus, the primary goal was the achievement of cultural adaptation through the proposed procedures and strategies for rendering CSCs [224], such as in the pre-pilot study. The second goal, on the other hand, was to create the relevant control (i.e., as *testing* [146]) of the lesson plan and its final form. To summarize, the three phases of the pilot survey are [44] (p. 973):

1. The first pilot phase was materialized in March 2019 and involved 14 adults (more specifically, teachers from secondary education) (18 years-old and older) from different cities and regions of Cyprus who attended the workshop "The (non-verbal) communication (to the solution) of conflicts" [192] in the context of the 18th Pancyprian Scientific Conference of the Educational Group of Cyprus (Εκπαιδευτικός 'Ομιλος Κύπρου/EOK in Greek language) on "RE-view of the Public School of Cyprus in a World of Constant Changes and Challenges" in Limassol/Lemesos after blind peer reviews. At this point it should be mentioned that the specific workshop consisted of two parts. One of them included the aforementioned lesson plan (i.e., the

second part) which was evaluated in practice in the framework of the first pilot phase. Similarly, the evaluation by the peer experts in the specific field of the workshop in the context of the blind review of the abovementioned conference gives the specific lesson plan an additional validity;

2. The second pilot phase was materialized in October 2019 in Thessaloniki (Greece) and involved nine adults (i.e., five PhD candidates and four postgraduate students) (18 years-old and older) with background in humanities as well as in mass media and media industry from the School of Journalism and Mass Communications, Faculty of Economic and Political Sciences, AUTh as special experts in the field of media studies; and finally
3. The third pilot phase was materialized in January 2020 prior to the emergence of the COVID-19 pandemic and involved 17 adult educators (18 years-old and older) from Athens (Greece) who had attended the pilot program of Adult Educator Training (200 h) with mixed learning (i.e., 164 h of distance education through mass open online course; MOOC and 36 h of lifelong education) from the "European Agenda for Adult Education and Training" in Greece. This program, which was undertaken by the General Secretariat for Lifelong Learning and Youth (Department of the Greek Ministry of Education and Religious Affairs), led to the certification examinations for the accreditation of 'Trainers for Adults' in the National Organisation for the Certification of Qualifications and Vocational Guidance (EOPPEP in the official abbreviation for English language) which operates under the supervision of the Greek Minister of Education, Research and Religious Affairs. Admittedly, it should be pointed out that the third pilot phase was voluntarily attended by the trainers of the pilot program of Adult Educator Training and staff from the General Secretariat for Lifelong Learning and Youth of the Greek Ministry of Education and Religious Affairs. At the end of this pilot phase, they gave oral positive comments, thus granting an informal validity since they are experts in the field. Additionally, they provided valuable feedback, suggestions, and useful tips.

Each of the above pilot phases, were carried out under the form of the focus group method, which is characterized as very useful for "*generating hypotheses, exploring opinions, attitudes, and attributes* [. . .], *and identifying and pretesting questionnaire items*" [234] (p. 1). Based on the literature, the above research sample of each corresponding pilot phase and the focus group sample sizes are considered ideal for the application of the focus group method [235,236], while this method is also considered an advantage for gaining deeper knowledge about the perceptions of a group of people [236]. In this particular case, it was the most suitable method to achieve the mentioned cultural adaptation through the proposed processes and strategies for the performance of CSCs [224]. Additionally, in the context of these three phases of the pilot survey, participants also completed the abovementioned form used in the framework of the research project NVC [169] (p. 170). The main reason was to give an additional later validity to this form used to create the final form of the Evaluation Form. Moreover, since the final form, after its new adaptation, included all the questions from the previous one, it would give us a first taste of the research results of the main investigation (i.e., they would function as a kind of poll). Part of these pilot research results, as well as other research effects and findings, has already been presented and published after blind peer reviews in proceedings of an international conference in Greece [168], and in reputable academic journals [44,169]. However, the most important research finding that emerges from these focus groups, and which is presented for the first time, is that the participants characterized the previous form as a very useful tool for their self-evaluation, something that was also indicated by the respective participants from the pre-pilot study for the final form (Section 3.3).

3.5. Research Data Processing and Analysis

The acquired research data were re-coded based on the new and modern research methodological approaches as well as from and through the Internet applications and

services. Notably, they were inserted in the IBM Statistical Package for Social Sciences (hereinafter called the SPSS) (version 25), as well as through the specialized online platform '*Survs.com*'. These software/applications were used to generate de novo descriptive statistics and results for scale reliability as well as to provide de novo statistical analysis (i.e., correlations).

Following the descriptive statistics about the profile and demographics (i.e., gender and age groups) of the research sample and before performing the analysis of the quantitative query research data, their internal reliability was re-tested using the "Cronbach's alpha" (i.e., the inter-data consistency among the research data) through SPSS. More explicitly, the internal reliability of all the quantitative questions (i.e., statements and parameters) (hereinafter referred to as items) (i.e., 29 items) from research protocol of the main investigation and the pilot case study resulted $\alpha = 0.869$. Similarly, for the items of each questionnaire respectively it resulted (a) $\alpha = 0.815$ for the statements (i.e., nine statements) of the FSS Form completed before the conduct of the seminar (hereinafter called the FSS 1) (pilot case study), (b) $\alpha = 0.886$ for the parameters (i.e., 11 parameters) of the Evaluation Form completed at the end of the seminar (main investigation), and finally (c) $\alpha = 0.788$ for the statements (i.e., nine statements) of the FSS Form which was completed again for the second time at the end of the seminar (hereinafter called the FSS 2) (pilot case study), respectively [44] (pp. 975–976). Based on the reported values which re-derived from testing Cronbach's "α", the research data of the statements and parameters are characterized as reliable (i.e., $\alpha > 0.700$) [237,238] and thus providing the assurance of the internal reliability from the research protocol. Additionally, a "test–retest" method through SPSS was re-applied on the research data of the statements of the FSS 1 and the FSS 2 (henceforth, FSS tool) from research protocol of the prototype research, since it was completed as mentioned above twice by the adult educators (i.e., before and at the end of the seminar) [44] (p. 976). The test ultimately showed again high "test–retest" reliability due to the fact that the relevant values resulting from the "intraclass correlation coefficient" (hereinafter cited as ICC) of the final nine statements of the FSS tool (Table 1) are considered acceptable, since they are $\geq$0.40 [239], and thus reliable and creditable [44] (p. 976). Moreover, an internal reliability was also performed on the research data of the statements of the FSS tool using again the "Cronbach's alpha" index through SPSS. The internal reliability of the nine statements from the FSS tool derived $\alpha = 0.876$, thus qualifying it as reliable (i.e., $\alpha > 0.700$) [237,238] and providing the assurance of the internal reliability of these research data as well.

Table 1. Reliability analysis of the FSS tool using the "test–retest" method.

		FSS TOOL								
	Statements [1]	**Q1**	**Q2**	**Q3**	**Q4**	**Q5**	**Q6**	**Q7**	**Q8**	**Q9**
test–retest	**ICC** [2]	0.716	0.709	0.801	0.643	0.513	0.793	0.663	0.864	0.702

[1] Appendix E [2] Intraclass Correlation Coefficient.

On the other hand, on the research data from the Evaluation Form regarding the averages value from four parameters associated with the "audiovisual-supported lesson plan", the *t*-test for independent samples through SPSS was applied in relation to country of origin (i.e., Greece and Cyprus) and gender (i.e., male and female) of the research sample for the purpose of its validation or refutability. Additionally, the average value of the parameter for the "educational tools" used in the seminar was also re-analyzed using the following methods: (a) analysis of variance in two factors (i.e., two-way ANOVA—2X2) through SPSS in relation to country of origin and gender of the research sample; as well as (b) analysis of variance in three factors (i.e., three-way ANOVA—2X3) through SPSS in relation to the age groups (i.e., 25–31years old—GenZer and GenYer, 32–38 years old—GenYer, 39–45 years old—GenYer and GenXer, 46–52 years old—GenXer, and 53–59 years old—GenXer and Baby Boomer Generation), the country of origin, and the gender of the research sample. The research effects of the independent variables with respect

to the analysis of variance are plotted in diagram forms (in this case as figures) through SPSS and digital processing in Microsoft Paint. Furthermore, to reveal and evaluate correlations with respect to the parameters or even with demographic research data of the main investigation, Pearson's r correlation was performed through SPSS this time. More concretely, the demographic research data that could be used to correlate with the parameters was only the age groups. Eventually, the qualitative research data collected from the second section of the Evaluation Form were (a) re-grouped and re-adjusted as quantitative research data in the form of four keywords (i.e., sound/audio media, video, classroom equipment, and content of seminar presentation; presentation) through research data segmentation and hermeneutical coding [240,241]; and (b) re-presented in graph form (i.e., again as figures) through Microsoft Excel 365® (version 18.2210.1203.0) and digital processing in Microsoft Paint (version 21H2), for better comprehension [219]. Finally, the research data from the FSS tool on the one hand were re-analyzed and re-presented based on the proposed scale score in the literature through Microsoft Excel 365® as well.

All research results, effects, and findings of the main investigation and the pilot case study are presented in the next section (Section 4) as a whole or individually in single or double or even more entry tables with frequencies and/or relative frequencies (i.e., percentages), average values (or mean values; MEAN), and standard deviations (SD), or in graph or diagram form after analysis through SPSS and '*Survs.com*'. Summing up, it should be noted that the analysis begins with descriptive statistics and then the presentation of the research results, effects, and findings via the application of statistical methods as well as the research data from the FSS tool follows; interpretations in the context of the respective case are provided.

4. Research Results, Effects, Findings and Discussion

In this section the research results, effects and findings of the main investigation and the pilot case study as well as their interpretation are provided through discussion. More specifically, in the following subsections an attempt is made to describe the research results and effects precisely as they derived from the secondary analysis, while all research findings are discussed in the broadest context possible. Additionally, to better present the research data and literature-supported information, interpret the research results and effects of research data re-analysis as well as understand their significance, this section has been organized based on the aforementioned research aims (RAs) of this enhanced research article. Finally, the section (a) begins with a description statistic of the research sample's characteristics (Section 4.1); (b) then follows the presentation of the research results, effects, and findings from the application of statistical methods (Section 4.2; Section 4.3), and next there is the presentation of the research data from the FSS tool (Section 4.4), following the research objectives (ROs); (c) and concludes with a summary of the current position with concluding discussion (Section 4.5).

4.1. Research Sample Characteristics and Descriptive Statistics

The adult educators who participated in the main investigation and the pilot case study as adult learners were selected using convenience sampling through a special e-list of volunteers with adult educators and adult learners from Greece and Cyprus, following all Internet sampling rules [141] (pp. 59–63) and the relevant privacy issues in Internet research [141,232]. These individuals had declared their participation through an online/electronic expression of interest (EoI) [232] (i.e., a web-based EoI) designed on '*Survs.com*' in order to participate in the pilot survey or the research in February and August 2019. The final e-list at the end of September 2019 (i.e., when the web-based EoI was officially closed) included of 1363 participants (of whom 1052 are adult educators and 311 are adult learners) from various regions of Greece and Cyprus, with different age and they belong to different generational cohorts, while they worked (or are working) and/or attended (or attend) an adult education program/course/lecture/seminar in different adult education structures/institutions and in different academic years [44] (p. 974).

The final research sample of the main investigation and pilot case study, as originally determined, had to meet two specific criteria, such as (a) being active adult educators during the academic year 2019–2020, and (b) being available the specific day on which the experiment (in this case the seminar) would be conducted (February 2020 for Athens and Thessaloniki in Greece as well as June 2020 for Nicosia/Lefkosia and Limassol/Lemesos in Cyprus) (Figure 1). Specifically, and for obvious reasons, it was decided to select prospective individuals only from the two larger cities of each country, Athens and Thessaloniki from Greece as well as Nicosia/Lefkosia and Limassol/Lemesos from Cyprus, respectively as well as from specific structures/institutions of adult education and training (i.e., Public Vocational Training Institute undertaken by the General Secretariat for Lifelong Learning and Youth in the Greek Ministry of Education and Religious Affairs from Greece, as well as Adult Education Centers in the Cyprus Ministry of Education, Culture, Sport, and Youth from Cyprus) [44] (p. 974). The above criteria were confirmed after a relevant communication through phone calling or short message service (hereinafter referred to as SMS), text message, or email through specialized online platform (such as, for example, web SMS/email page or web SMS/email application, an enterprise-class service to send SMS/email using online software/service—following the relevant privacy issues in Internet research [141,232]) with the prospective individuals [44] (p. 974). Summarizing and based on the aforementioned criteria, the final research sample of this main investigation consists of 76 active adult educators as adult learners, 38 participants from Greece with a percentage of 50% (i.e., 19 adult educators from Athens with a percentage of 25% and 19 adult educators from Thessaloniki with a percentage of 25%), and 38 participants from Cyprus with a percentage of 50% (i.e., 19 adult educators from Nicosia/Lefkosia with 25% and 19 adult educators from Limassol/Lemesos with 25%) [44] (p. 974). Additionally, the age of the research sample ranges from 25 to 59 years old (age groups: 25-31 years old—GenZer and GenYer, 32–38 years old—GenYer, 39–45 years old—GenYer and GenXer, 46–52 years old—GenXer, and 53–59 years old—GenXer and Baby Boomer Generation) while in relation to their gender, the research sample is consisted only by male or female. The specific research sample, based on the literature is conceptually valid [140] (pp. 143–145) and is considered acceptable [142,143] as sample ($\geq$15) in research that uses the experiment method [142] (p. 102), as well as based on the rules of Internet sampling [141] (pp. 59–63).

The statistical distribution of the variable of gender was 37 male adult educators with a percentage of 48.71% (i.e., 19 males in Greece with a percentage of 51.4% and 18 males in Cyprus with a percentage of 48.6%) and 39 female adult educators with a percentage of 51.29% (i.e., 19 females in Greece with a percentage of 48.7% and 20 females in Cyprus with a percentage of 51.3%) [44] (p. 978). More detailed, (a) out of the 19 males from Greece nine were coming from Athens with a percentage of 47.4% and 10 from Thessaloniki with a percentage of 52.6%, and (b) out of the 18 males from Cyprus 11 were coming from Nicosia/Lefkosia with a percentage of 61.1% and seven from Limassol/Lemesos with a percentage of 38.9%, while (c) among the 19 females coming from Greece, 10 were from Athens with a percentage of 52.6% and nine from Thessaloniki with a percentage of 47.4%, and (d) out of the 20 females from Cyprus were eight from Nicosia/Lefkosia with a percentage of 40% and 12 from Limassol/Lemesos with a percentage of 60% [44] (p. 978) (Figure 2).

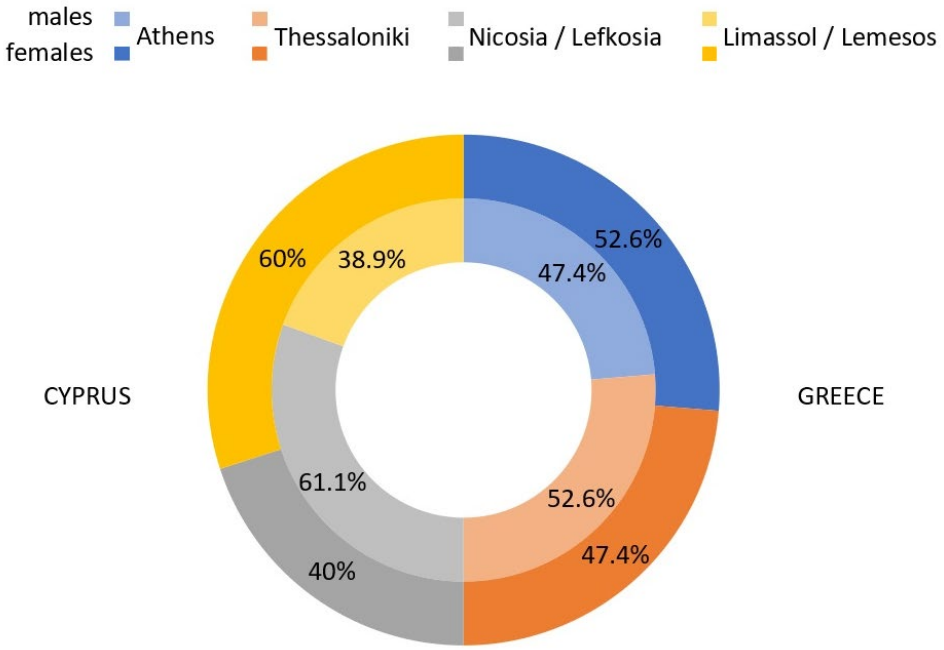

Figure 2. Adult educators' demographics (gender and city/country).

Regarding their age groups, the following research findings are obtained: (a) 21 adult educators 25–31 years with a percentage of 27.6% (specifically 11 males with a percentage of 14.46%—52.4% and 10 females with a percentage of 13.14%—46.6%) (i.e., GenZer and GenYer); (b) 29 adult educators 32–38 years with a percentage of 38.2% (specifically nine males with a percentage of 11.9%—31% and 20 females with a percentage of 26.3–69%) (i.e., GenYer); (c) 12 adult educators 39–45 years with a percentage of 15.8% (specifically six males with a percentage of 7.9–50% and six females with a percentage of 7.9–50%) (i.e., GenYer and GenXer); (d) 12 adult educators 46–52 years with a percentage of 15.8% (specifically nine males with a percentage of 11.85–75% and three females with a percentage of 3.95–25%) (i.e., GenXer); and finally (e) two adult educators 53–59 years with a percentage of 2.6% (specifically two males with a percentage of 2.6–100%) (i.e., GenXer and Baby Boomer Generation) [44] (p. 978). More details on the adult educators' demographics (age groups/generational cohorts and gender) are provided in Table 2.

Table 2. Adult educators' demographics (age groups/generational cohorts and gender).

	25–31 Years Old [1]			**32–38 Years Old** [2]			**39–45 Years Old** [3]			**46–52 Years Old** [4]			**53–59 Years Old** [5]		
	f	**%**		**f**	**%**		**f**	**%**		**f**	**%**		**f**	**%**	
MALE	11	14.46	52.4	9	11.9	31	6	7.9	50	9	11.85	75	2	2.6	100
FEMALE	10	13.14	46.6	20	26.3	69	6	7.9	50	3	3.95	25	-	-	-
SUBTOTAL	21	27.6	100	29	38.2	100	12	15.8	100	12	15.8	100	2	2.6	100

[1] GenZer and GenYer; [2] GenYer; [3] GenYer and GenXer; [4] GenXer; [5] GenXer and Baby Boomer Generation.

In conclusion, according to the above research findings on the demographic distribution, it appears that most of the adult participants in the seminars belong to the generational cohorts of GenYer and GenZer (Table 2), among which most of the members usually tend to perceive and use technology more actively [15,35,37,46,131,138,242]. Based on relevant literature dealing with generations, members of these generational cohorts are characterized as *digital natives* with specific characteristics [15,138,243,244]. A series of recent studies not only re-corroborated this statement, but additionally showed that these generations more easily adopt new, more modern technological or even digital technological methods and numerous innovations in various sectors [17,35–37,46,131,138,242,245–247]. Moreover, in today's technological and digital socio-cultural environment it appears that this phe-

nomenon is "*more pronounced in primary and secondary general education, as well as in higher education with newly admitted students/learners at the undergraduate level*" [15] (p. 28), who consist mainly of GenZer and Generation Alpha members (people born from 2011 and onwards [248]) [37,46,249]. In addition, some research studies have shown that perhaps even members of GenXer and Baby Boomer Generation can also be characterized as *digital natives* [15,108,250,251], and that is something that seems to occur here as well and should be investigated further. In closing and taking all this into account as well as the fact that the adult participants were selected through a special e-list after web-based EoI, then all the above research findings of the statistical distribution are justified.

4.2. Research Interactive Seminar—RO1

The grouped subtotal responses of the research sample, in terms of the degree of satisfaction from the first part of the Evaluation Form in relation to the "organization of acquired knowledge", range mainly in the five-point Likert scale options from 3 to 5 ("FAIR" to "EXCELLENT") (Table 3). The highest percentage for option 5 ("EXCELLENT") at "acquired knowledge organization" was captured by the parameter for "questions/answers" at the end of the seminar (i.e., 54 adult educators with a percentage of 71.1%) (MEAN: 4.46 and SD: 1.064) (Table 3). This leads to the conclusion that the implementation of a healthy dialogue through communication among any educator and their learners within the framework of educational path plays an important and a crucial role, and this is mainly up to each educator, who should have this this ability and the skill too [4,15,19,27,37,77,252]. Furthermore, one of the most interesting research results from this secondary analysis was the parameter with the lowest average value percentage within "acquired knowledge organization", which was the "knowledge" they acquired (theoretical background investigation) on the subject (MEAN: 3.97 and SD: 0.894) (Table 3), something which is characterized in the literature as purely subjective for each individual [253]. Additional details and information on the full grouped subtotal responses of adult educators' "acquired knowledge organization" are provided in Table 3.

Table 3. Full grouped subtotal responses from the Evaluation Form based on "acquired knowledge organization".

DEGREE OF SATISFACTION	VERY POOR	POOR	FAIR	GOOD	EXCELLENT	MEAN	SD
Expectations		2–2.6%	10–13.2%	50–65.8%	14–18.4%	4.00	0.653
Organization		2–2.6%	11–14.5%	40–52.6%	23–30.3%	4.11	0.741
Interesting Suggestions		2–2.6%	6–7.9%	40–52.6%	28–36.8%	4.24	0.709
Discussion Time	2–2.6%		16–21.1%	19–25%	39–51.3%	4.22	0.961
Questions/Answers	4–5.3%	2–2.6%	3–3.9%	13–17.1%	54–71.1%	4.46	1.064
Development Issues			10–13.2%	30–39.5%	36–47.4%	4.34	0.703
Knowledge		5–6.6%	16–21.1%	31–40.8%	24–31.6%	3.97	0.894

On the other hand, the highest percentage for option 5 ("EXCELLENT") in the respective selection at "spatial technical/logistical infrastructure" was captured in the parameter for "educational tools" used in the seminar (i.e., 43 adult educators with a percentage of 56.6%) (Table 4). Moreover, this parameter also had and the highest average value (MEAN: 4.41 and SD: 0.751) (Table 4), resulting in the conclusion that the specific educational tools (i.e., the ICTs) are considered the most suitable (RO2). In contrast, the lowest average value and at the same time the lowest percentage for option 5 ("EXCELLENT") derived after research data processing and analysis, was the parameter for "venue" (MEAN: 3.66 and SD: 0.776) (i.e., 11 adult educators with a percentage of 14.5%) (Table 4). Additionally, at this point, it should be noted that the parameter for "time" also had a lower average value (MEAN: 3.92 and SD: 0.744) compared to the average value of the other parameters (below 4) (Table 4). Based on these research findings, the parameters of "time" and "venue" are now considered critical and decisive factors for the implementation of a lecture, and this

should be seriously noted by adult educators from now on. It is a fact that these unquestionable research findings are also found in recent quantitative research in Greece in 2019 with the same methodological approach [37,46], confirming that the time has finally come to be thoroughly investigated in the future with the hope of obtaining a clearer research result. More details and information about the full grouped subtotal responses of adult educators' "spatial technical/logistical infrastructure" are provided in Table 4.

Table 4. Full grouped subtotal responses from the Evaluation Form based on "spatial technical/logistical infrastructure".

DEGREE OF SATISFACTION	VERY POOR	POOR	FAIR	GOOD	EXCELLENT	MEAN	SD
Time		3–3.9%	15–19.7%	43–56.6%	15–19.7%	3.92	0.744
Venue		3–3.9%	31–40.8%	31–40.8%	11–14.5%	3.66	0.776
Period		2–2.6%	13–17.1%	40–52.6%	21–27.6%	4.05	0.746
Educational Tools			12–15.8%	21–27.6%	43–56.6%	4.41	0.751

Overall, the parameters associated with the interactive audiovisual-supported lesson plan template show high average values (above 4) (Table 5), delivering a first impression that this lesson plan achieved its purpose. In particular, based on the secondary analysis of the above research data in relation to the age groups in the research sample, it seems to have had a greater impact on the younger generational cohorts, especially GenZer and GenYer (Table 6), leading to the conclusion that this interactive audiovisual-supported lesson plan holds great promise for future curriculum design in adult education. Likewise, it can be used as a template for future adults' audiovisual-supported lesson plans, since tomorrow's adult learners will be members of GenZer. In addition, the visualized secondary research results from the above secondary analysis capture a small generation gap that appears to exist between generational cohorts (Figure 3). This secondary research finding confirms Prensky's theory in relation to *digital immigrants* and *digital natives* [243,244], even if the specific research sample was characterized as *digital natives* based on the research sampling method that was applied though a web-based EoI. Moreover, this research finding is very useful and important for adult educators because it is also confirmed by the research finding that emerged in a related later online cross-cultural pilot case study of the research project MACE in Cyprus and Greece during the academic year 2020–2021 with the same methodological approach [15]. More specifically, adult educators should always take into account and take nothing for granted regarding the idiosyncrasies of their adult learners [15] (pp. 29–30). Finally, according to the secondary research results of the statistical analysis of the *t*-test for independent samples in relation to the country of origin and the gender of the research sample, it appears that there is no statistically significant difference in their average values (Table 7), with the result that H1 is confirmed and H2 is rejected. Undoubtedly, this research finding in relation to the research sample's country of origin confirms that indeed these two countries seem to have (a) a similar polarized pluralistic socio-cultural environment; (b) a recent and common socio-political framework of economic crisis and austerity; and (c) media socio-phenomena [15,128,137–139] (H1), while the research finding in relation to gender is something that should definitely be studied further.

Table 5. Full grouped subtotal responses from the Evaluation Form based on "audiovisual supported lesson plan".

DEGREE OF SATISFACTION	VERY POOR	POOR	FAIR	GOOD	EXCELLENT	MEAN	SD
Organization		2–2.6%	11–14.5%	40–52.6%	23–30.3%	4.11	0.741
Interesting Suggestions		2–2.6%	6–7.9%	40–52.6%	28–36.8%	4.24	0.709
Development Issues			10–13.2%	30–39.5%	36–47.4%	4.34	0.703
Educational Tools			12–15.8%	21–27.6%	43–56.6%	4.41	0.751

Table 6. Average values and standard deviations from the Evaluation Form based on "audiovisual supported lesson plan" in relation to the age groups of the research sample.

AGE GROUPS		PARAMETER QUESTIONS			
		Organization	Interesting Suggestions	Development Issues	Educational Tools
25–31 years old [1]	MEAN	4.38	4.43	4.33	4.29
	SD	0.740	0.676	0.658	0.845
32–38 years old [2]	MEAN	4.17	4.21	4.41	4.55
	SD	0.848	0.861	0.682	0.686
39–45 years old [3]	MEAN	3.75	4.17	4.17	4.00
	SD	0.452	0.718	0.718	0.853
46–52 years old [4]	MEAN	3.83	4.08	4.42	4.67
	SD	0.577	0.289	0.515	0.492
53–59 years old [5]	MEAN	4.00	4.00	4.00	4.50
	SD	0.000	0.000	0.000	0.707

[1] GenZer and GenYer; [2] GenYer; [3] GenYer and GenXer; [4] GenXer; [5] GenXer and Baby Boomer Generation.

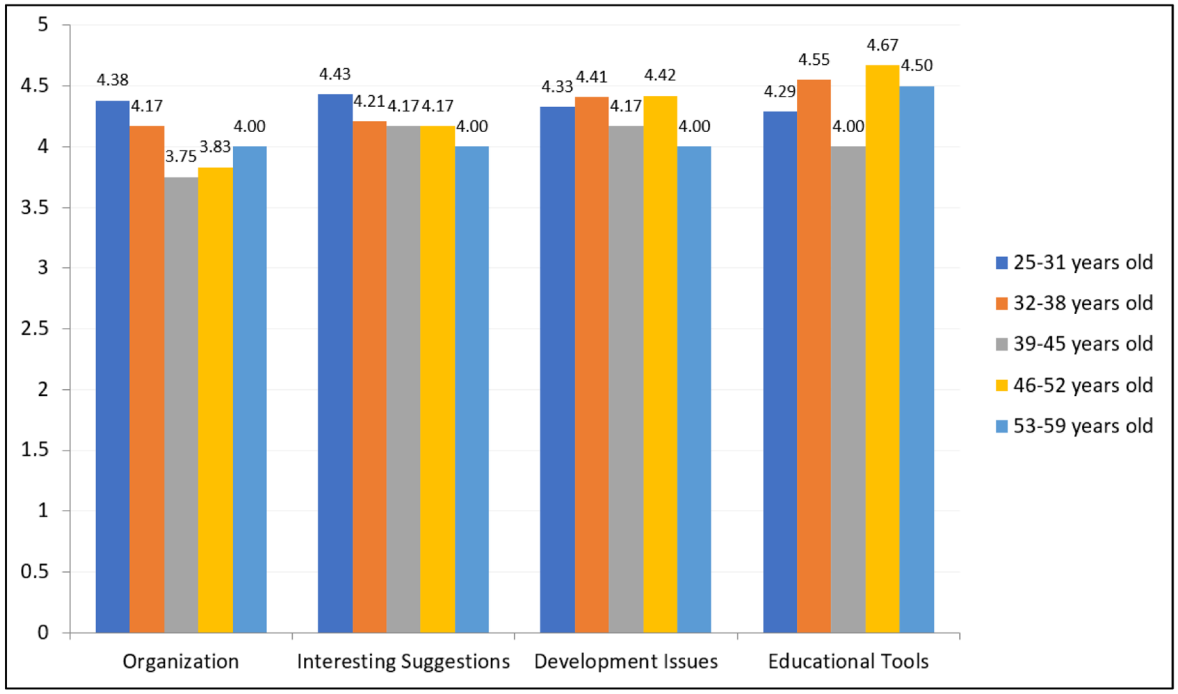

Figure 3. Average values from the Evaluation Form based on "audiovisual supported lesson plan" in relation to the age groups of the research sample.

Table 7. Secondary research results of the statistical analysis from independent-samples *t*-test in relation to the country of origin and the gender of the research sample.

		PARAMETER QUESTIONS			
		Organization	**Interesting Suggestions**	**Development Issues**	**Educational Tools**
COUNTRY OF ORIGIN	*t*-test	2.568	1.978	1.435	0.152
GENDER		−2.532	−2.607	−2.059	−1.570

Following the average values of the country of origin of the research sample in graphic representation in Figure 4 as well as in Table 8, it is observed that the parameters' average values received from Cyprus indicate a more positive intention compared to the parameters' average values received from Greece (Figure 4 and Table 8). that the parameters' average values received from Cyprus indicate a more positive intention compared to the parameters' average values received from Greece (Figure 4 and Table 8), where females' average values are more positive than males' (Figure 5 and Table 9). At this point, it should be mentioned that these research findings appear to be reproducible because they are also presented in other relevant studies and research papers as well, both in relation to Cyprus versus Greece [15,169] as well as female versus male respectively in relation to the wider employment of technology, new technologies, and in the field of media and ICTs in general over the last decade [15,35,46,123,126,254,255]. Moreover, in line with these research findings, it can be stated that they can be considered as a kind of *reproducible phenomenon*. Finally, it is worth mentioning that these research findings are also again reflected in the research effect of the secondary analysis of the variation on two factors (2X2) in relation to the interaction among the gender and the country of origin of the research sample in the degree of satisfaction for the parameter on the "educational tools" used in the seminar in diagram form in Figure 6.

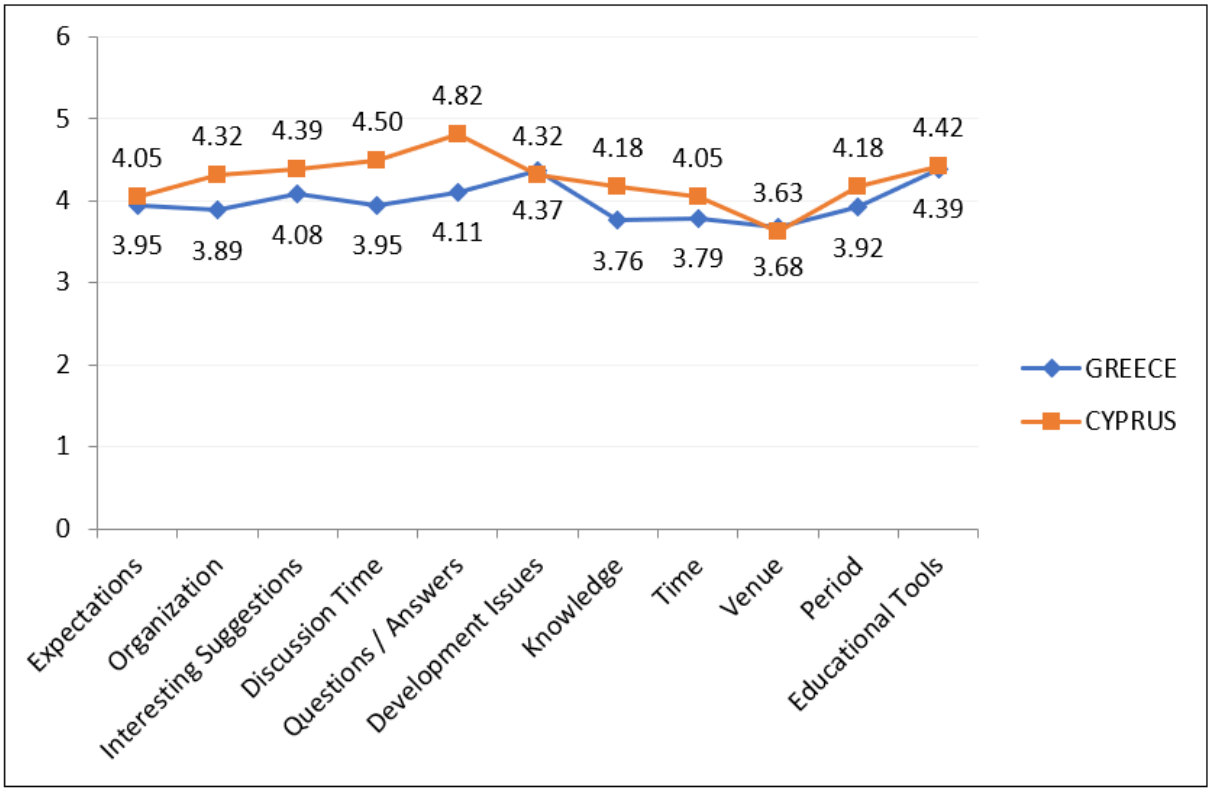

Figure 4. Average values from the Evaluation Form based on country of origin.

Table 8. Average values and standard deviations from the Evaluation Form based on country of origin.

COUNTRY		PARAMETER QUESTIONS										
		Expectations	Organization	Interesting Suggestions	Discussion Time	Questions/Answers	Development Issues	Knowledge	Time	Venue	Period	Educational Tools
GREECE	MEAN	3.95	3.89	4.08	3.95	4.11	4.37	3.76	3.79	3.68	3.92	4.39
	SD	0.733	0.727	0.712	1.064	1.371	0.675	0.801	0.741	0.714	0.818	0.790
CYPRUS	MEAN	4.05	4.32	4.39	4.50	4.82	4.32	4.18	4.05	3.63	4.18	4.42
	SD	0.567	0.702	0.679	0.762	0.393	0.739	0.943	0.733	0.842	0.652	0.722

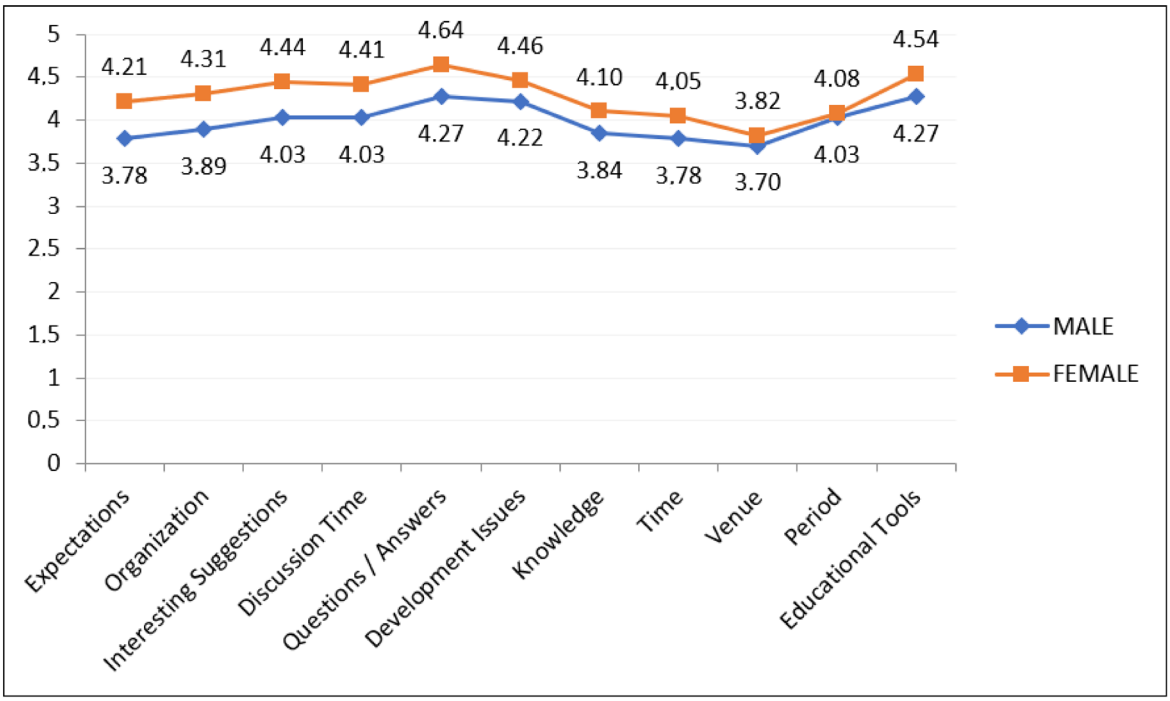

Figure 5. Average values from the gender-based Evaluation Form.

Table 9. Average values and standard deviations from the gender-based Evaluation Form.

GENDER		PARAMETER QUESTIONS										
		Expectations	Organization	Interesting Suggestions	Discussion Time	Questions/Answers	Development Issues	Knowledge	Time	Venue	Period	Educational Tools
MALE	MEAN	3.78	3.89	4.03	4.03	4.27	4.22	3.84	3.78	3.70	4.03	4.27
	SD	0.672	0.809	0.763	1.093	1.262	0.750	0.866	0.787	0.878	0.866	0.838
FEMALE	MEAN	4.21	4.31	4.44	4.41	4.64	4.46	4.10	4.05	3.82	4.08	4.54
	SD	0.570	0.614	0.598	0.785	0.811	0.643	0.912	0.686	0.873	0.623	0.643

The research effect of the main investigation obtained from the secondary analysis of the variation on two factors (2X2) also highlighted that there is a statistically significant interaction of and differences among the gender and the country of origin of the research sample on the degree of satisfaction for the parameter on the "educational tools" used in the seminar (Figure 6). More precisely, research effect points toward the existence of statistically significantly higher average values than the research sample of Cyprus in the degree of satisfaction for the aforementioned parameter—something which is also presented as research result in Figure 4. Additionally, after checking the average values, it was re-determined that females in Greece (MEAN: 4.47 and SD: 0.697) versus Cyprus (MEAN: 4.60 and SD: 0.598) had different average values than males in Greece (MEAN: 4.32 and SD: 0.885) versus Cyprus (MEAN: 4.22 and SD: 0.808) (Table 10). Specifically, the difference in the average values among females in Cyprus versus Greece was greater (i.e., 0.13) than among males between Greece and Cyprus (i.e., 0.10) [44] (p. 981) (Table 10). To summarize, all the above relevant and further information and details are presented in Table 10 and Figure 7, while this interesting interaction is clearly depicted in diagram form

in the aforementioned Figure 6. Finally, it should be noted that the presented research effect aligns with the research results and findings of the aforementioned recent online cross-cultural pilot case study of the research project MACE conducted during the academic year 2020–2021 with an adult research sample (18 years-old and older) from Cyprus and Greece [15].

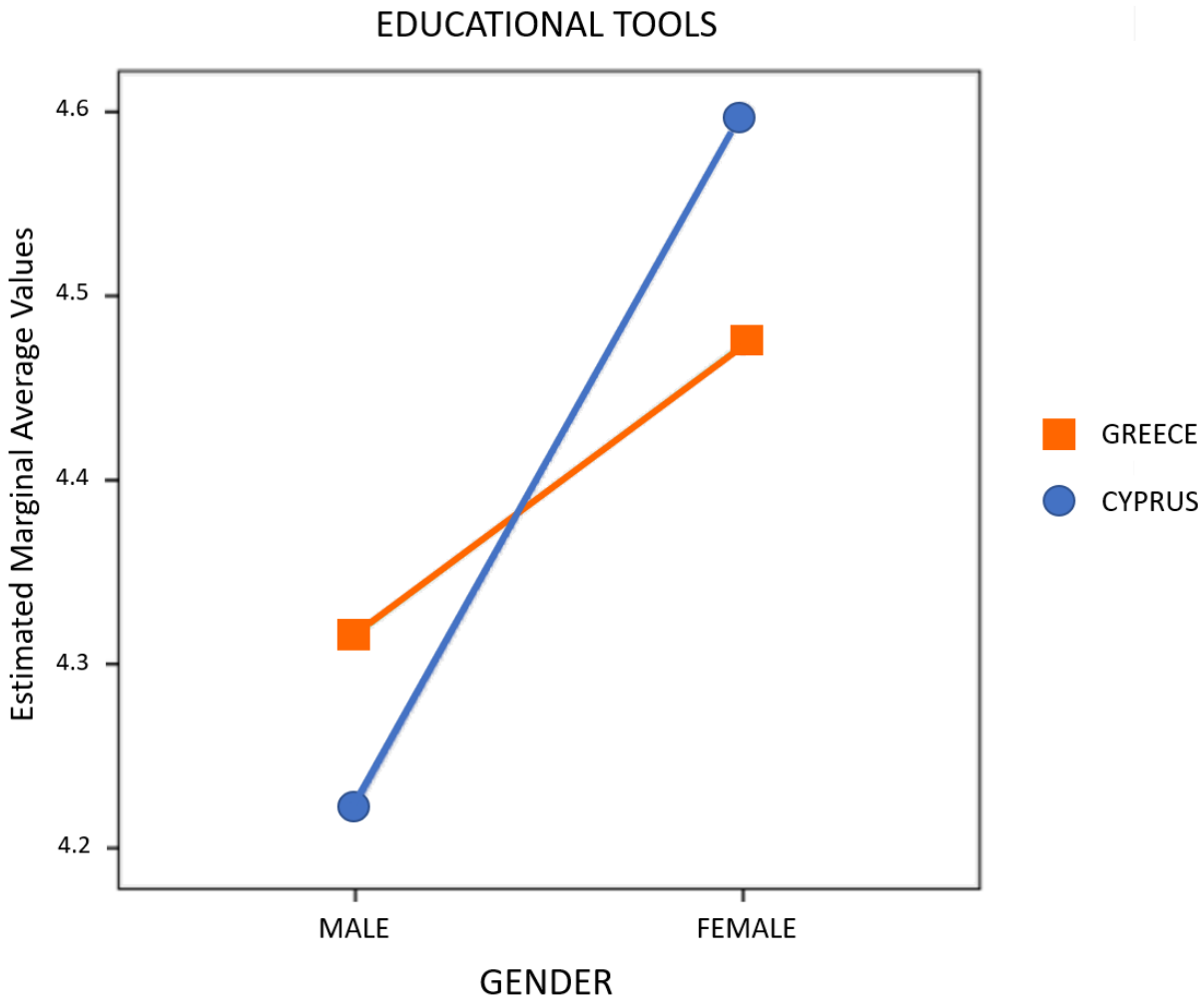

Figure 6. The presentation of the independent variables in two factors (i.e., two-way ANOVA—2X2) among the gender and country of origin of the research sample on the degree of satisfaction for the parameter question on the "educational tools" used in the research interactive seminar.

Table 10. Full grouped subtotal responses from the parameter for "educational tools" in relation to country of origin and gender of the research sample—2X2.

COUNTRY.	GENDER	EDUCATIONAL TOOLS					MEAN	SD
		DEGREE OF SATISFACTION						
		VERY POOR	POOR	FAIR	GOOD	EXCELLENT		
GREECE	MALE			5–26.3%	3–15.8%	11–57.9%	4.32	0.885
	FEMALE			2–10.5%	6–31.6%	11–57.9%	4.47	0.697
CYPRUS	MALE			4–22.2%	6–33.3%	8–44.4%	4.22	0.808
	FEMALE			1–5%	6–30%	13–65%	4.60	0.598
SUBTOTAL				**12–15.8%**	**21–27.6%**	**43–56.6%**	**4.41**	**0.751**

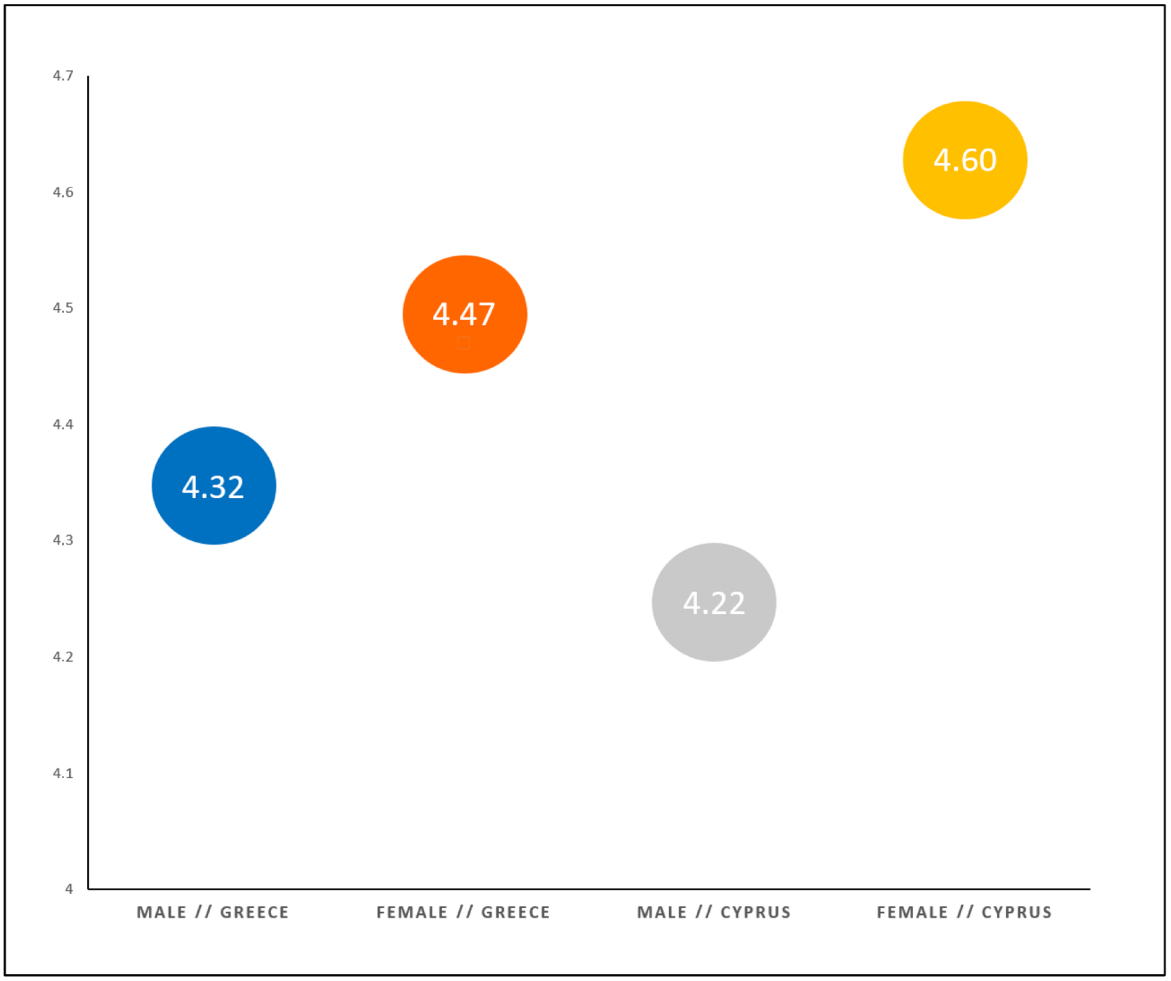

Figure 7. Dispersion of average values from the parameter for "educational tools" in relation to country of origin and gender of the research sample—2X2.

According to the research effects of the main investigation, which derived from the variation secondary analysis in three factors (2X3) among the age groups, the country of origin and the gender of the research sample on the degree of satisfaction for the parameter of the "educational tools" used in the seminar, showed again that the unique statistically significant effect is this age groups of the research sample [44] (pp. 981–982 This particular interaction is presented in diagram form in two new gender-based figures, for male in Figure 8 and female in Figure 9. Furthermore, grouped subtotal responses in relation to age groups are also considered and presented in Table 11. Conclusively, the research effects from three-factor analysis (2X3) are characterized as critical and should be explored well in advance and/or further related and associated at a later stage or even thoroughly explored through another investigation with perhaps a larger research sample size to ensure improved generalizability of the research results and to determine a better outcome.

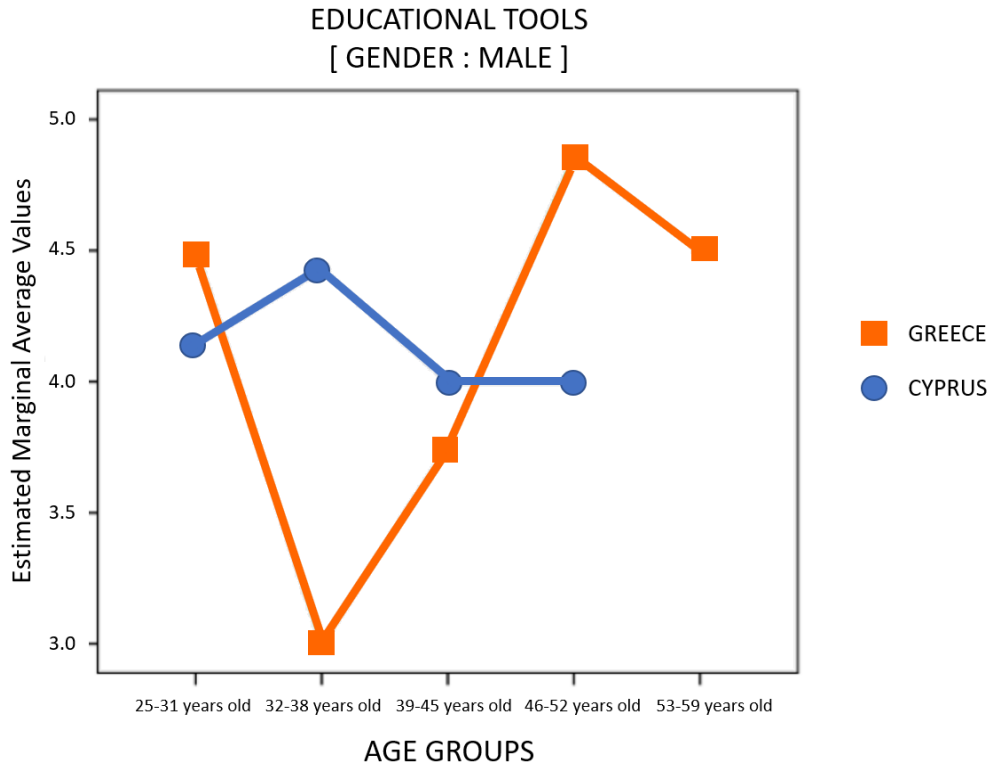

Figure 8. The presentation of the independent variables in three factors (i.e., three-way ANOVA—2X3) among the age groups, the country of origin, and the gender of the research sample on the degree (i.e., male) of satisfaction for the parameter question on the "educational tools" used in the research interactive seminar.

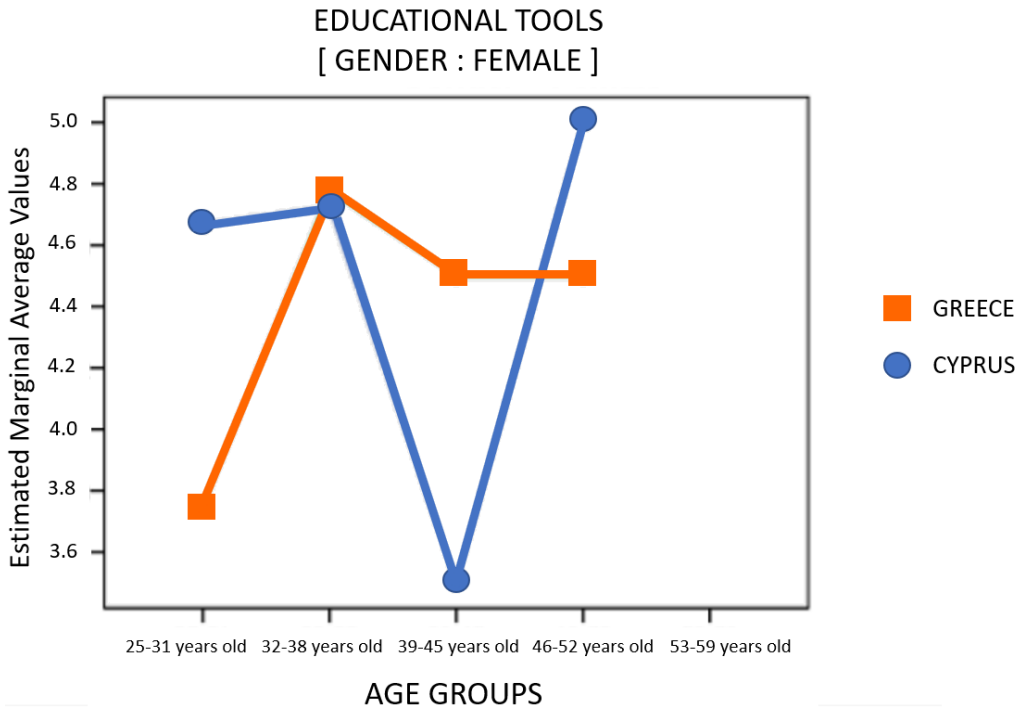

Figure 9. The presentation of the independent variables in three factors (i.e., three-way ANOVA—2X3) among the age groups, the country of origin, and the gender of the research sample on the degree (i.e., female) of satisfaction for the parameter question on the "educational tools" used in the research interactive seminar.

Table 11. Grouped subtotal responses from the parameter question for "educational tools" in relation to age groups of the research sample.

AGE GROUPS	EDUCATIONAL TOOLS					MEAN	SD
	DEGREE OF SATISFACTION						
	VERY POOR	POOR	FAIR	GOOD	EXCELLENT		
25–31 years old [1]			5–23.8%	5–23.8%	11–52.4%	4.29	0.845
32–38 years old [2]			3–10.3%	7–24.1%	19–65.5%	4.55	0.686
39–45 years old [3]			4–33.3%	4–33.3%	4–33.3%	4.00	0.853
46–52 years old [4]				4–33.3%	8–66.7%	4.67	0.492
53–59 years old [5]				1–50%	1–50%	4.50	0.707

[1] GenZer and GenYer; [2] GenYer; [3] GenYer and GenXer; [4] GenXer; [5] GenXer and Baby Boomer Generation.

Subsequently, based on the correlation of parameters from the research results of the main investigation, the parameters that are strongly correlated with all the other parameters are the "expectations", the "organization", the "interesting suggestions", the "time" and the "period", something that can be considered as the informal success of the seminar by the adult participants (Table 12). However, the statistical analysis showed that there are also four non-correlated factors with each other that are reflected in two parameters. Specifically, (a) the first non-correlation is captured in the parameter "venue" with the parameters "discussion time", "development issues" and "knowledge" they acquired (theoretical background investigation) on the subject, while (b) the second one, in the parameter "educational tools" used in the seminar with the parameters the "questions/answers" at the end of the seminar (Table 12). Admittedly, these two non-correlations can be considered as partly expected, and in particular the "venue" parameter that holds the lowest percentage in the grouped total responses of the research sample in terms of the degree of satisfaction from the Evaluation Form which was mentioned above. Meanwhile, the non-correlation between the parameters "educational tools" and "questions/answers", it is probably due to the fact that when the learners asked the questions at the end of the seminar the instructor did not use educational tools. Detailed research results that correlate with all the corresponding parameters of educational effectiveness that were used in the Evaluation Form can be found in Table 12.

The research results from the correlation in relation to the age groups of adult learners with all the corresponding parameters of educational effectiveness that were used in the Evaluation Form are unfortunately correlated only weakly. Notably, they are weakly correlated with the parameters' "organization" ($r = -0.278$, $p < 0.01$) and "questions/answers" ($r = -0.255$, $p < 0.01$) (Table 13). Generally, these research results are characterized as particularly interesting, and it would be good to further investigate them. Further details on adult learners' age groups and the parameters of educational effectiveness that were used in the Evaluation Form are provided in Table 13.

Table 12. Pearson's r correlation test for the 11 parameter questions of educational effectiveness.

		Expectations	Organization	Interesting Suggestions	Discussion Time	Questions/ Answers	Development Issues	Knowledge	Time	Venue	Period	Educational Tools
Expectations	Pearson Correlation	1	0.634 **	0.604 **	0.574 **	0.518 **	0.539 **	0.594 **	0.576 **	0.342 **	0.547 **	0.326 **
	Sig. (2-tailed)		0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.004
Organization	Pearson Correlation	0.634 **	1	0.485 **	0.454 **	0.564 **	0.427 **	0.367 **	0.426 **	0.296 **	0.472 **	0.329 **
	Sig. (2-tailed)	0.000		0.000	0.000	0.000	0.000	0.001	0.000	0.010	0.000	0.004
Interesting Suggestions	Pearson Correlation	0.604 **	0.485 **	1	0.410 **	0.348 **	0.521 **	0.388 **	0.541 **	0.319 **	0.555 **	0.367 **
	Sig. (2-tailed)	0.000	0.000		0.000	0.002	0.000	0.001	0.000	0.005	0.000	0.001
Discussion Time	Pearson Correlation	0.574 **	0.454 **	0.410 **	1	0.602 **	0.500 **	0.364 **	0.715 **	0.104	0.541 **	0.297 **
	Sig. (2-tailed)	0.000	0.000	0.000		0.000	0.000	0.001	0.000	***0.371***	0.000	0.009
Questions/ Answers	Pearson Correlation	0.518 **	0.564 **	0.348 **	0.602 **	1	0.370 **	0.377 **	0.535 **	0.323 **	0.557 **	0.145
	Sig. (2-tailed)	0.000	0.000	0.002	0.000		0.001	0.001	0.000	0.004	0.000	***0.210***
Development Issues	Pearson Correlation	0.539 **	0.427 **	0.521 **	0.500 **	0.370 **	1	0.363 **	0.474 **	0.131	0.461 **	0.507 **
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.001		0.001	0.000	***0.261***	0.000	0.000
Knowledge	Pearson Correlation	0.594 **	0.367 **	0.388 **	0.364 **	0.377 **	0.363 **	1	0.358 **	0.102	0.302 **	0.274 *
	Sig. (2-tailed)	0.000	0.001	0.001	0.001	0.001	0.001		0.002	***0.380***	0.008	0.017
Time	Pearson Correlation	0.576 **	0.426 **	0.541 **	0.715 **	0.535 **	0.474 **	0.358 **	1	0.322 **	0.752 **	0.273 *
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	0.000	0.002		0.005	0.000	0.017
Venue	Pearson Correlation	0.342 **	0.296 **	0.319 **	0.104	0.323 **	0.131	0.102	0.322 **	1	0.607 **	0.311 **
	Sig. (2-tailed)	0.002	0.010	0.005	***0.371***	0.004	***0.261***	***0.380***	0.005		0.000	0.006
Period	Pearson Correlation	0.547 **	0.472 **	0.555 **	0.541 **	0.557 **	0.461 **	0.302 **	0.752 **	0.607 **	1	0.365 **
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	0.000	0.000	0.008	0.000	0.000		0.001
Educational Tools	Pearson Correlation	0.326 **	0.329 **	0.367 **	0.297 **	0.145	0.507 **	0.274*	0.273*	0.311 **	0.365 **	1
	Sig. (2-tailed)	0.004	0.004	0.001	0.009	***0.210***	0.000	0.017	0.017	0.006	0.001	

* Correlation was significant at the 0.05 level (two-tailed). ** Correlation was significant at the 0.01 level (two-tailed).

Table 13. Pearson's r correlation test of age groups with the 11 parameter questions of educational effectiveness.

		PARAMETER QUESTIONS										
		Expectations	Organization	Interesting Suggestions	Discussion Time	Questions/ Answers	Development Issues	Knowledge	Time	Venue	Period	Educational Tools
AGE GROUPS	Pearson Correlation	0.092	***−0.278*** *	−0.168	−0.183	***−0.255*** *	−0.041	−0.167	−0.022	0.126	−0.018	0.071
	Sig. (2-tailed)	0.432	0.015	0.146	0.114	0.026	0.728	0.150	0.853	0.277	0.879	0.545

* Correlation was significant at the 0.05 level (two-tailed).

4.3. ICTs Suitability—RO2

As mentioned above, the qualitative research data collected from the open-ended question in the second section of the Evaluation Form were re-grouped and re-adjusted as quantitative research data into four ICTs keywords: (a) sound/audio media; (b) video; (c) classroom equipment; and finally (d) presentation (i.e., the content). The literature highlights that the employment of ICTs in education contributes to effective teaching and to technology-enhanced learning outcomes [1,4,14,15,37,69,78,79,83–87]. Similarly, that ICTs play a meaningful role in the success of a teaching methodology and an essential non-verbal role in our psychological and mental health [1,4,13,14,46,54–59]. Observing Figure 10 shows that the video far surpasses the rest (with a percentage of 75%), while the presentation follows by a very small margin (with a percentage of 69.7%) (Figure 10). These research findings may be due to the special processing applied both in the video and in the presentation (i.e., that they were revised or updated or upgraded, etc.). If this is indeed the case, then well-organized, well-edited and well-crafted material seems to play a crucial and decisive role in the end in an active teaching–learning procedure. Likewise, adult participants may be able to perceive their usefulness (i.e., quality of experience; QoE [50,110,210]), and this is something that should be explored further. More precisely, adult educators reported (a) the employment of sound/audio spots/audio files (i.e., sound/audio media) with a percentage of 46.1% (i.e., 35 adult educators out of 76); (b) the employment of video with a percentage of 75% (i.e., 57 adult educators out of 76); (c) the classroom equipment (e.g., PC, projected visuals materials via presentation software—i.e., the ICT-tools) with a percentage of 51.3% (i.e., 39 adult educators out of 76); and finally (d) the content of the seminar presentation with a percentage of 69.7% (i.e., 53 adult educators out of 76) [44] (p. 980) (Figure 10).

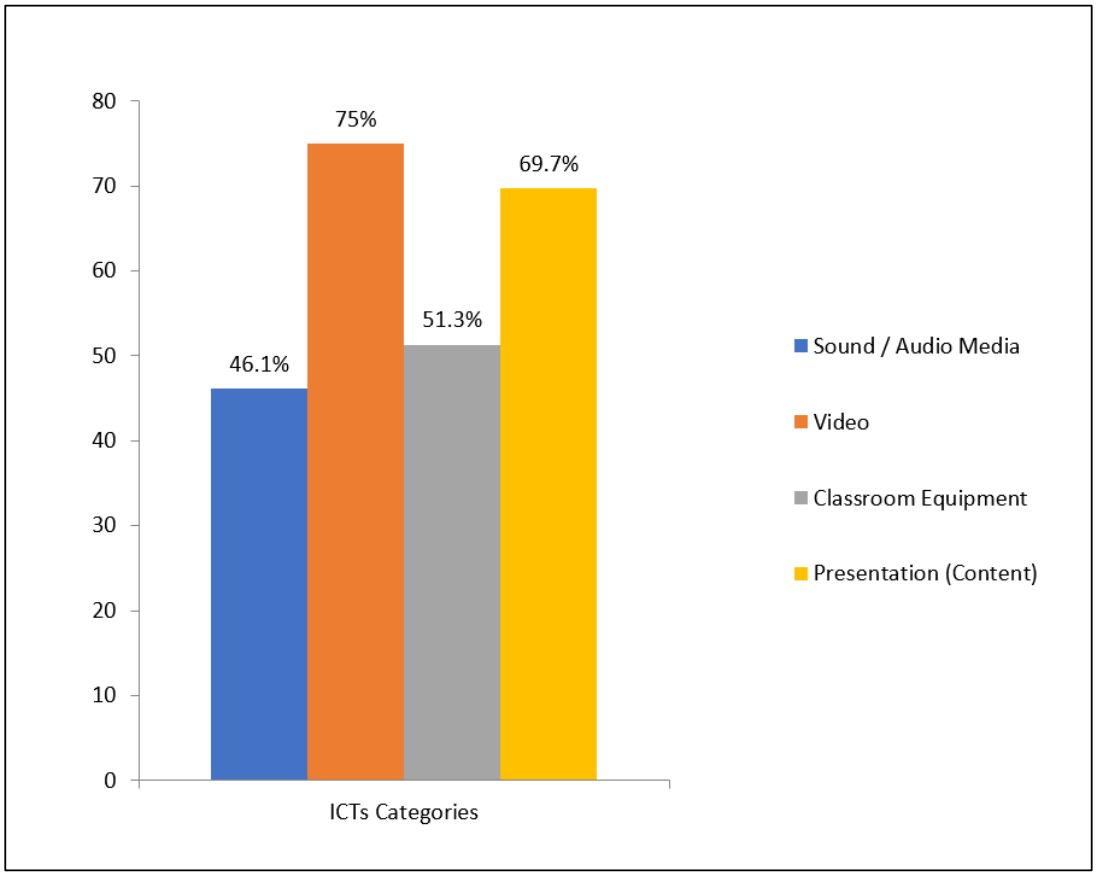

Figure 10. Grouped and adjusted qualitative research data as quantitative research data from the second part of the Evaluation Form in four categories.

In summary, what can be argued with certainty is that the adult educators who participated in the main investigation have a positive attitude toward the specific employment of ICTs in a lecture, and they also seem to accept them favorably. Admittedly, these research findings are also confirmed through numerous studies, interventions, and research papers [15,35–37,46,107,131,168,169], with the result that specific ICTs are considered suitable for use in adult education (RO2). Additionally, what can be safely concluded is that specific ICTs are considered helpful in comprehending, e.g., a lecture, as presented in recent relevant adult education' literature reviews [4,8,78,79,81,133,136,182], especially the use and adoption of short videos. Generally, as a final conclusion, what might be added is that the mentioned ICTs kept the interest and attention of the adult educators as adult learners. Conclusively, more details in relation to country of origin and gender of adult educators are provided in Figure 11, Figure 12, and Figure 13, which should be further explored in the future.

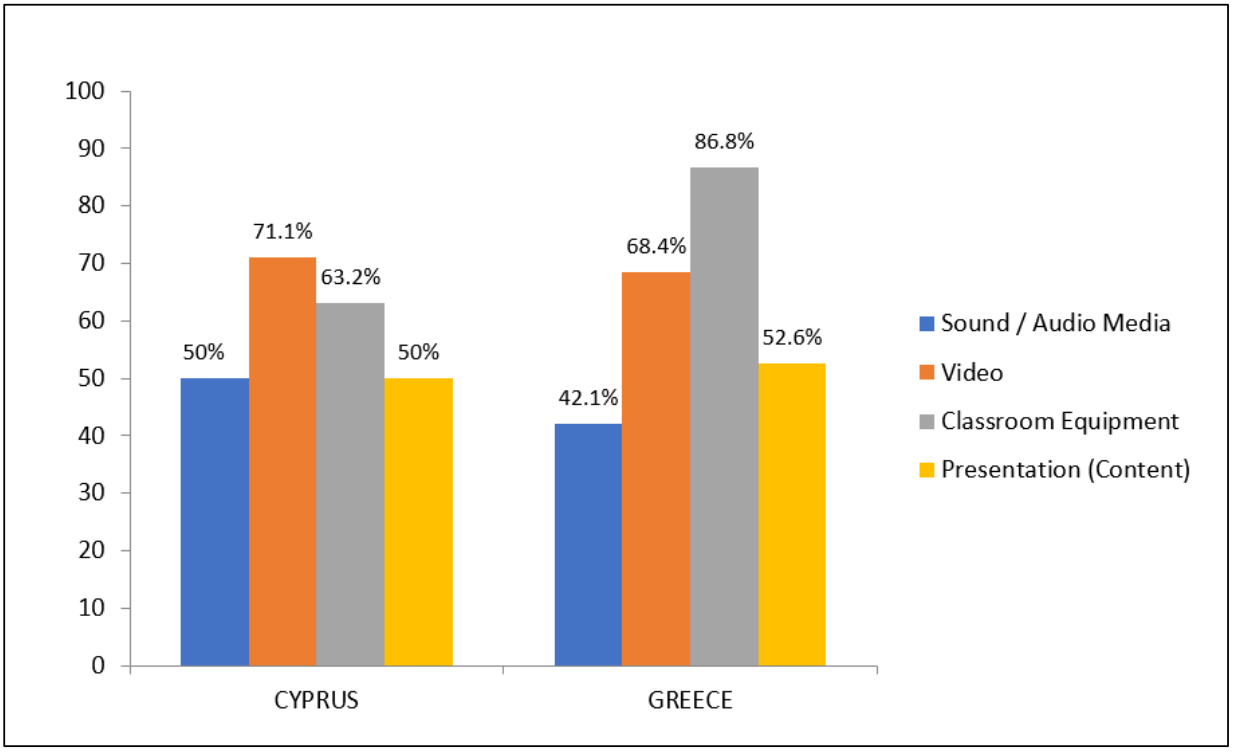

Figure 11. Grouped and adjusted qualitative research data as quantitative research data from the second part of the Evaluation Form in four categories based on the country of origin of the research sample.

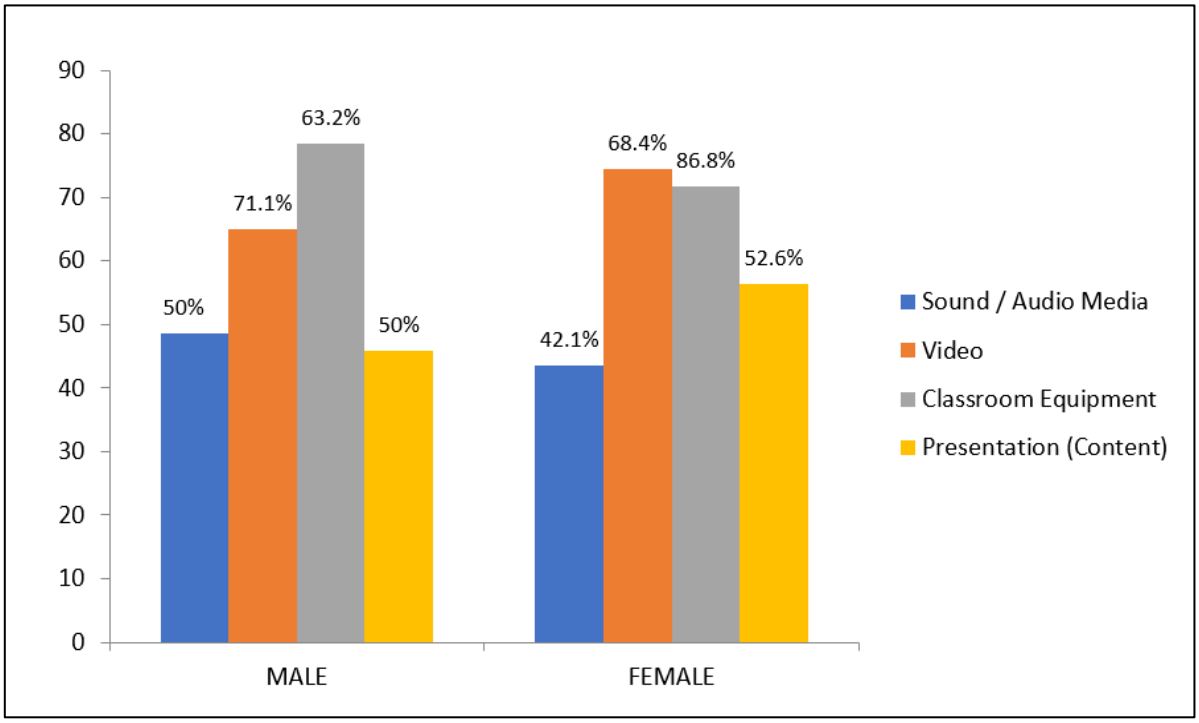

Figure 12. Grouped and adjusted qualitative research data as quantitative research data from the second part of the Evaluation Form in four categories based on the gender of the research sample.

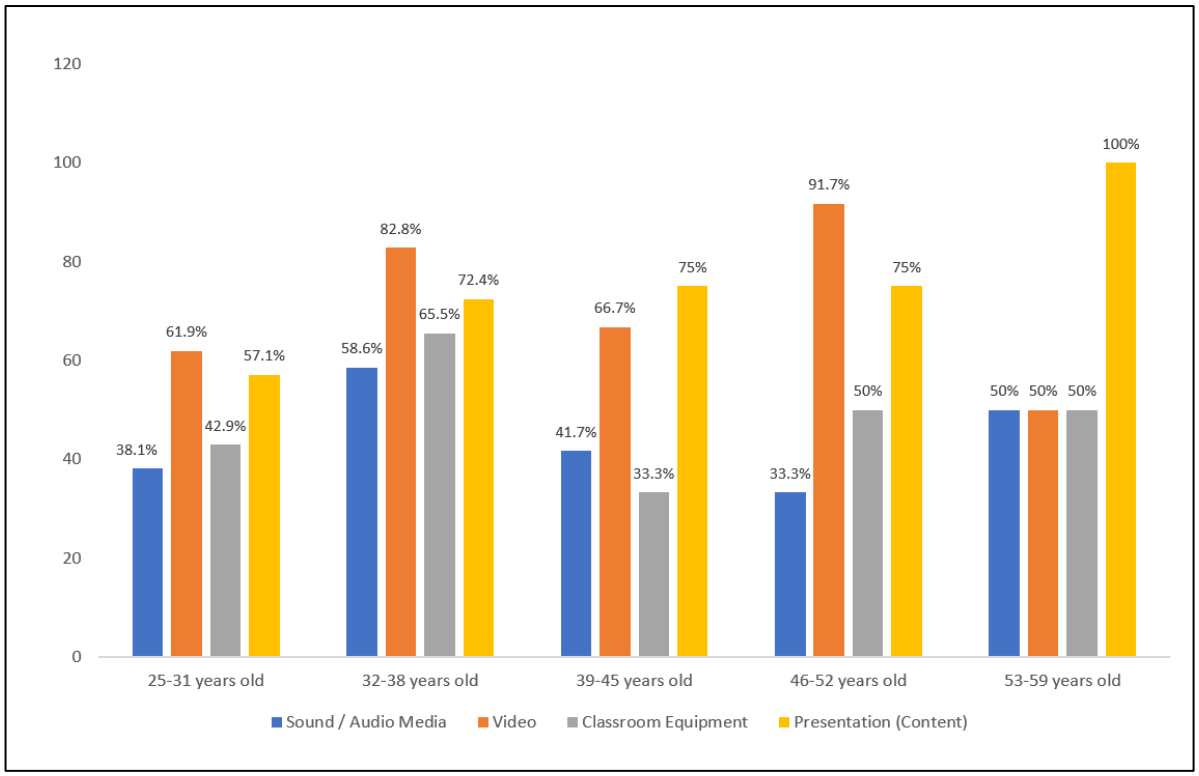

Figure 13. Grouped and adjusted qualitative research data as quantitative research data from the second part of the Evaluation Form in four categories based on the age groups of the research sample.

4.4. Pilot Case Study: FSS Tool—RO3

It is indeed interesting that the benefits that ICTs offer to our psychological and mental health based on the literature of the last decades are numerous [58,256–259]; one of them

is this research effect from the resulting pilot case study. As evidenced by the secondary analysis of the research data using the FSS tool showed again that the "fatigue" of the adult educators as adult learners after the seminar using the specific mentioned ICTs decreased to 7.95% [44] (p. 981) (Table 14). This significant reduction is also perceived more clearly by the depiction in Figure 14. To summarize, it may be argued that the employment of the specific ICTs within the context of didactic process (in this case by the form of a lesson plan) significantly reduces the symptoms of fatigue or even tiredness at the end of the teaching–learning procedure; thus, they seem to improve concentration and help humans (i.e., adult learners in this case) in their psychological and mental health (RO3); however, a question arises. Was this reduction in fatigue ultimately due to the employment of ICTs as technological and educational tools or due to the specially digitally processed audiovisual content used and/or displayed through ICTs (i.e., through a video)? If the answer is the audiovisual content, then the above research effect contradicts the other research results and findings of other studies and research papers that state and suggest that content from various media and means have a negative consequence on psychological well-being and impairs their mental and psychological health [260,261]; likewise, it reduces our physical health if used extensively (i.e., audiovisual consumption) [262]. Of course, this apparently does not apply in this particular case.

Table 14. The research data from the FSS tool.

		FSS TOOL									SUBTOTAL
		Statements [1]									
		Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	
FSS 1	SCORE	466	378	358	424	389	449	417	346	369	3596
	%	87.59	71.95	67,29	79.69	73,12	84,39	78,38	65.03	69.36	**75.10**
	MEAN	6.13	4.97	4.71	5.58	5.12	5.91	5.49	4.55	4.86	5.26
	SD	0.737	1.932	1.513	1.181	1.460	0.969	1.465	1.754	1.572	
FSS 2	SCORE	440	373	322	384	338	394	376	292	296	3215
	%	82.71	70.11	60.53	72.18	63.53	74.06	70.68	54.89	55.64	**67.15**
	MEAN	5.79	4.91	4.24	5.05	4.45	5.18	4.95	3.84	3.89	4.69
	SD	0.914	1.834	1.582	1.264	1.692	1.283	1.540	1.767	1.638	

[1] Appendix E.

It is a fact that ICTs may always have multitude of uses in a teaching–learning procedure and/or within the framework of the educational process. A characteristic paradigm is the video which in the context of technology-enhanced learning always has a dual employment in the didactic process, both as audiovisual media technology (i.e., as educational tool) and as audiovisual content (or audiovisual educational content) (i.e., as educational/teaching material) [4,78,81,133,136,182]. Apparently, this statement was captured both here (i.e., the pilot case study) as a research consequence and in the main investigation. Following the research findings from Section 4.3 concerning the main investigation, it appeared that the video had far surpassed the other three ICTs categories with a percentage of 75% (Figure 10), thus leading to the conclusion that the reduction in fatigue in this case as well, was mainly due to video engagement. Nevertheless, a significant major disadvantage is that it is not possible to know which of the two employments of the video applies exactly.

In closing, it should be mentioned that unfortunately, based on the methodological approach applied (i.e., pilot study), and following the RAs of this study, the aforementioned stated question cannot be scientifically answered with certainty at this time; but only the research effect and consequence that have occurred can be given as an answer. The reason is that more extensive specialized research is required. Additionally, based on the small size of the research sample and without knowing their health status (i.e., medical history), their generalization to the population cannot be allowed either. What can be stated, however, with certainty is that a plethora of literature reviews and research studies in education, art

and media fields indicate that audiovisual content does indeed play a crucial and decisive role in a teaching–learning procedure and/or within the framework of the educational process [15,37,46,54–58,263–267].

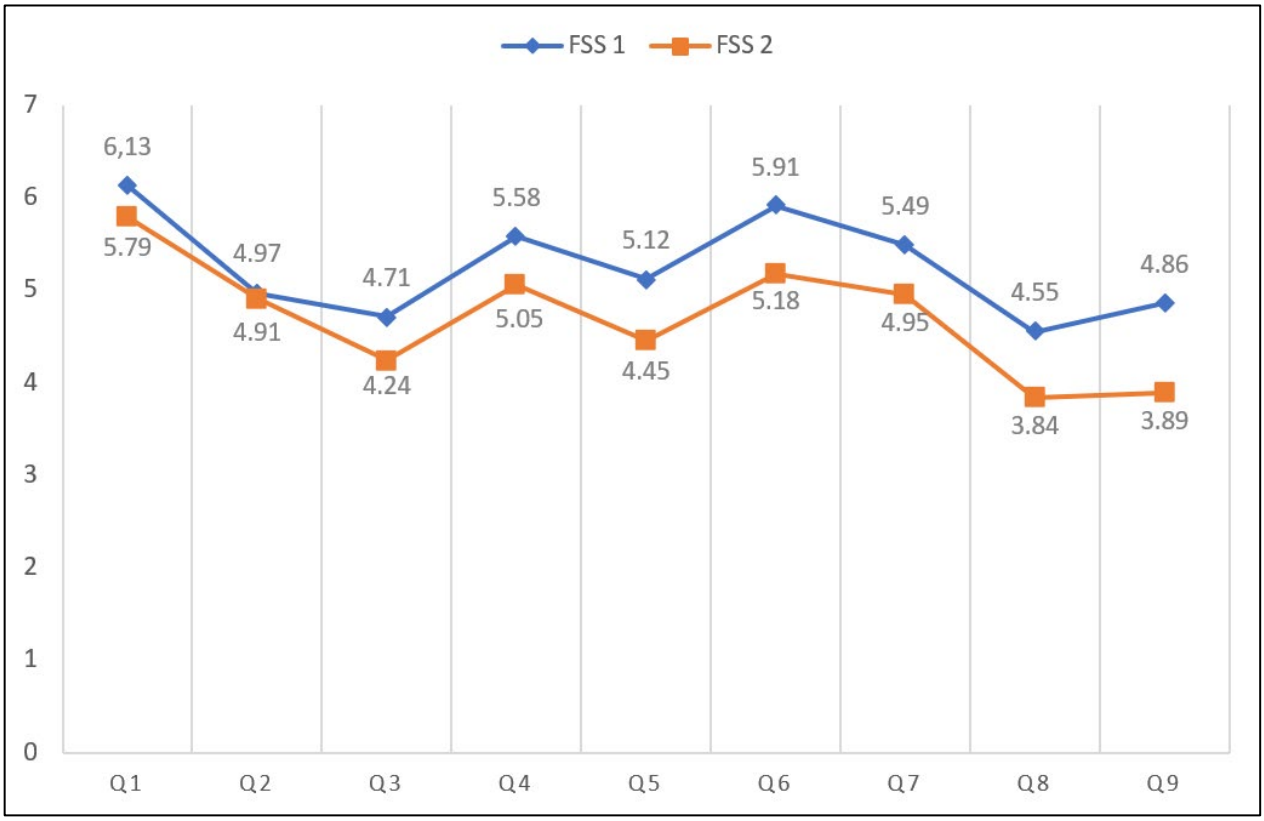

Figure 14. FSS 1 versus FSS 2 average values.

4.5. Concluding Discussion

The research results from this study, unfortunately due to the sampling procedure as well as to the research sample size without socio-demographic characteristics, cannot allow their generalization to the populations of either Greece or Cyprus, although some interesting research effects and findings have emerged. These research effects and findings confirm the current debate on the employment of contemporary ICTs within the framework of the process of technology-enhanced learning in education (including also adult education or even afterschool programs) as derived both by the recent literature [1,2,4,8,9,125], and by the research results and findings of various other studies and research papers in recent years [10–12,15,37,46,71,116,120,121].

According to all the all-abovementioned research results, effects and findings, the dual aim of the present study is deemed to have been successfully achieved. Notably, the obtained research results contribute to the quality of adult education, while the discussed research effects and findings are in line with the relevant ICTs literature in education (including, of course, adult education) to support technology-enhanced learning (RA1). Additionally, the secret non-verbal role in our psychological and mental health that arises through utilizing ICTs is presented (RA2). Moreover, the interesting discussion that took place in the context of the descriptive statistics of the research sample's characteristics showed that this study's adult participants (i.e., as adult learners) have special characteristics (e.g., as *digital natives* [243,244]) (Section 4.1) that should always be considered. The literature states that educators should also adapt the employment of ICTs based on cultural and ethnic minority groups as well as on the generational cohorts their learners or students belong to [4,8,15,37,46,61,81,88,93–95,136,268,269]; thereby, learning will never end and will obviously be lifelong. To summarize, all the above research results, effects

and findings are consistent with the relevant literature on what modern adult education and the modern adult educator should now look like in our time and in the future.

Considering all the aforementioned, and following the average values obtained from the analysis of the first part (Section 4.2) as well as the research findings from the third part (Section 4.3) of the Evaluation Form, what can be affirmed is that finally all the seminars were ultimately crowned with success. As mentioned, all the seminars lasted the same duration (i.e., 90 min), were implemented by the same instructor and used the same educational tools, and all the adult educators as adult learners who participated attended exactly the same presentation. Given these, in all probability, the seminars' success may be due to three reasons; (a) the lesson plan implemented, (b) the instructor who performed them, and (c) the specific ICTs used.

In recapitulating, the lesson plan that was implemented and was presented and discussed in-depth in Section 3.1 can be considered a case of *constructivism* and be used as a basis for creating an interactive audiovisual-supported lesson plan aiming at adult learners as an alternative approach. Admittedly, creating a lesson plan that is ultimately based on a previous evaluated lesson plan appears to be a creditworthy and sustainable option after all. Besides, it is already characteristically underlined in the literature that when a lesson plan is based on a previous plan that has been tested before, or through a co-design process, both the learners or students and the educators themselves seem to be able to reap increasingly useful benefits [15,46,114,115,117,120]. On the other hand, the literature highlights that an educator should possess an identity triptych [35,46]: (a) academic background, (b) professional experience and (c) contemporary technological and pedagogical knowledge—something, as mentioned, that the instructor who performed the seminars already owned. Additionally, the use of short videos within the didactic process may be an innovative learning strategy and an important parameter for understanding a subject, while the application of differentiated teaching confirmed the new audiovisual theory in education that suggests it as an audiovisual technology-supported teaching methodology [4]. Despite what the most recent research has shown about how vital the formation of the positive use of short videos [116,120,121,270] and the effective application of differentiated teaching [159,271–274] in teaching–learning procedure for learner achievement, the specific fields are still fluid, and more research on them is needed. In closing, a final inference that arises from the employment of the specific ICTs through a lesson plan is that it indicates how important its effective integration in the teaching–learning procedure as well as their immediate institutionalization within the framework of the didactic process for an effective education is.

5. Conclusions and Epilogue

The inspiration for this study came from the evident interest that the employment of ICTs in education has acquired due to the COVID-19 pandemic. The implementation of effective ICTs through a lesson plan in the adult education setting is ultimately a difficult challenge facing today's adult educators. However, it is not necessarily the implementation that causes any problems, e.g., for the non-success of an ICT-supported lecture, but the failure to recognize which ICTs are effective. This is what leads to the subsequent continuation of implementing ineffective ICTs that do not facilitate adult learning—and this is unfortunately due solely to the adult educators themselves. Additionally, the success of a lesson plan is also due to the audiovisual content, which adult educators should be very careful in choosing [15] (pp. 36–37). Adult educators should finally change their contemporary educational role to improve it by utilizing digital modern ICTs in order to keep pace with new and current global trends because they play a paramount role in guiding adult learners from and through active teaching–learning procedures [1,2,12,15,275,276].

Continuous developments in socio-economic status, the rapid growth of contemporary ICTs, the constant flow of migration and mobility, the alterations in socio-family structures as well as in the scientific–cultural environment have also re-adapted the professional identity of adult educators to be technological and emotional over time beyond their educational

role [28,31,269,277–279]. Recent literature emphasizes that modern adult education through the employment of ICTs should motivate adult learners to participate in more socio-cultural fields as well as give them motivation to grow, evolve and perhaps find even better career opportunities [8]. To achieve these, it is up to the adult educators themselves because the effective integration of ICTs presupposes multimodal adult educators who possess "*imagination, charisma, uniqueness, nervousness, patience, and perseverance*" [44] (p. 987), in order to be able to impart new and modern knowledge and wisdom to their adult learners from and through technology-enhanced learning for active learning [4,8,15,46,133,276,280].

In conclusion, utilizing ICTs within the framework of the educational process in adult education can also generate multiple incentives and the stimulation of perceptual skills that will lead to enhanced learning outcomes as well as to reducing symptoms of fatigue or even tiredness, thus improving concentration and helping non-verbally the psychological and mental health of their adult learners. The possession of *multiple-multimodal skills* is characterized nowadays as the epitome of an adult educator's professional identity as well as the key ingredient for a successful career in adult education. Finally, any employment of ICTs should always be contextualized and tailored by adult educators taking into account the various inherent, specific and genealogical characteristics as well as the immediate and indirect needs of their adult learners, so that their adult learning never ends and is obviously lifelong.

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Informed Consent Statement: Informed consent was obtained from all subjects who participated in the prototype research (i.e., the research project MACE).

Data Availability Statement: The primary research data that have been used for secondary analysis in this article are available upon request to the corresponding author. They are not publicly available due to the fact that they are part of the ongoing research project MACE, which began in 2016. This research project has not yet been completed at the time of writing this article.

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Conflicts of Interest: The authors declare no conflict of interest.

Abbreviations

AUTh	Aristotle University of Thessaloniki
AMC-MSRC	Audiovisual Media Communications in Media Studies of Radio Courses
CAR	Classroom Action Research
COVID-19	Coronavirus disease 2019—official name for the disease caused by the SARS-CoV-2 (2019-nCoV) coronavirus
CSCs	Culture-Specific Concepts
DJ	Disc Jockey
EoI	Expression of Interest
FSS	Fatigue Severity Scale
GDPR	General Data Protection Regulation

GenXer	Generation X
GenYer	Generation Y
GenZer	Generation Z
ICC	Intraclass Correlation Coefficient
ICTs	Information Communication Technologies
ISPOR	International Society for Pharmacoeconomics and Outcomes Research
MACE	Media, Audiovisual Content, and Education
MEAN	Average
MOOC	Mass Open Online Course
NVC	Non-Verbal Communication
PC	Personal Computer
PhD	Doctor of Philosophy
PS	Pilot Survey
Q	Question/Statement
QE	Qualitative Experiments
QoE	Quality of Experience
QoL	Quality of Learning
RA	Research Aim
RO	Research Objective
RP	Research Purpose
SAC	Scientific Advisory Committee
SD	Standard Deviations
SFX	Sound effects
SPSS	Statistical Package for Social Sciences
SMS	Short Message Service
TV	Television
WHO	World Health Organization
WoD	Wings of Destiny
3P	Preage, Process, and Product

Appendix A

WELCOME VIDEO and MY STORY—video URL: https://youtu.be/acBr_Af8eVE (accessed on 24 October 2022).

Appendix B

Non-Verbal Communication—The Documentary—video URL: https://youtu.be/Ym081ObRtPc (accessed on 24 October 2022).

Appendix C

Non-Verbal Communication—video URL: https://youtu.be/UeZN214AQts (accessed on 24 October 2022).

Appendix D

GNTM 2: Italian widows and emotions—video URL: https://youtu.be/EHIymDkM-EU (accessed on 24 October 2022).

Appendix E. The Nine Questions from the Original Fatigue Questionnaire by Krupp and Her Collaborators [220]

Q1: My motivation is lower when I am fatigued.
Q2: Exercise brings on my fatigue.
Q3: I am easily fatigued.
Q4: Fatigue interferes with my physical functioning.
Q5: Fatigue causes frequent problems for me.
Q6: My fatigue prevents sustained physical functioning.
Q7: Fatigue interferes with carrying out certain duties and responsibilities.

Q8: Fatigue is among my three most disabling symptoms.
Q9: Fatigue interferes with my work, family, or social life.

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