Navigating the Digital Culture Frontier: Digital Skills and 21st-Century Skills in Student-authored Digital Multimodal Composition

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Abstract. This forward-looking research on digital multimodal composing (DMC) aims to explore emerging trends in student-authored digital multimodal compositions in English for Specific Purposes (ESP) courses. This study involved an open-ended questionnaire answered by 263 tourism students assigned to create a tourism-promotional video. This study, employing thematic analysis, highlights the importance of digital media such as videos in preparing students for their future careers. It also underscores how videos can reach and influence global audiences, thereby making English a significant international language. This study elaborates on digital skills because DMC requires robust digital skills. The study testified to the power of DMC in scaffolding students' 21st-century skills. This suggests that creating videos is vital in today's digital culture and essential for tourism promotion and students' future careers.

Keywords: Video Production, Digital Multimodal Composing, Digital Skills, 21st-century Skills, English Language Teaching.

1 Introduction

The digital age presents new challenges and opportunities for education and career advancement. In the digital age, integrating technology and media into education has become increasingly important. Digital multimodal composing (DMC) has surged as one of the most popular topics in teaching in the globalized era. Multimodality refers to the use of two or more modes to communicate an intended message or meaning [1,2]. It is an interdisciplinary approach rooted in social semiotics that extends beyond language to view communication and representation and systematically examines the social interpretation of various modalities used to create meaning [3]. Multimodal literacy posits that meanings are created and shared through various resources, not just language [4,5]. A central element involves reorganizing representational and communicational resources, such as images, actions, and sounds, into new multimodal ensembles [6]. Jewitt [3] explains that concepts like meaning functions, multimodal ensemble, modal affordance, materiality, semiotic resources, and modes have been emphasized as key to multimodality. Mode is a potential resource that a person utilizes to convey meaning [1]. A mode is a system of visual and verbal elements across cultures

that represents and conveys meaning [7]. It is a collection of tools shaped by social and cultural contexts that are used to create meaning and to represent or communicate [8]. Modes interact with each other to create meaning. Modes are meaning-making systems that articulate meaning mandated by social requirements in communities [9]. Given its potential benefits, the multimodal approach has been increasingly incorporated into course curricula in diverse learning contexts [10].

Digital multimodal composing (DMC) refers to a textual practice in which digital tools are used to combine words with various semiotic modes, such as images and sound tracks [11]. It involves the use of digital tools to create meaning using multiple modes, such as text, images, and sound [12]. It includes the design or production of a digital genre in which an individual integrates linguistic text with one or more non-linguistic modes [13,14]. Kessler and Marino [13]mention that these digital genres encompass, but are not limited to, blogs, websites, digital posters and brochures, slideshow presentations (such as PowerPoint), e-portfolios, and video projects. DMC can be in the form of any multimodal product that involves technology in its production. Students enhance their meaning-making by mixing and transmediating available semiotic resources and continuously reflecting on their design processes [15].

The primary aim of digital multimodal composition is to cultivate competencies across various modes, including language [16]. In the past two decades, multimodality has gained significant interest from language teachers and researchers within and beyond ELT contexts [2]. While language is a multimodal resource, various forms of multimodality have been promoted to develop students' multiliteracy in educational settings [17]. The role of multimodal composition in language teaching reflects the evolving nature of communication and language competence [18].

Digital and multimodal literacy practices are crucial in today's communicative landscape [19]. Language learners often need suitable scaffolding to fully engage in digital multimodal compositions and maximize their learning potential [20]. Media such as video is becoming increasingly relevant as a learning tool. To equip students with 21st-century skills in using various semiotic modes, a digital video project for multimodal creation has proven to be promising [17]. Digital video projects are complex and often require students to manipulate text, images, videos, music, and oral speech to varying degrees [13].

Technological expertise supports career development in the tourism industry. The ability to create and edit videos is important for promoting tourist attractions. Skills in making videos help in the learning process and provide added value for students in the world of work, especially in the tourism sector. In the digital era, tourism students must create and utilize videos to promote destinations by leveraging social media and online platforms to expand their promotional reach. This research examined how digital multimodal composing in the form of student-authored promotional videos contributes to improving career opportunities due to its role in students' digital skills and 21st century skills in an English for Specific Purposes (ESP) class. This study demonstrates how combining these skills can provide students with a competitive edge in the global job market and contribute to developing more effective curricula in higher education, especially in English and tourism programs.

2   Method

This study was a small component of a larger research project. The research involved an open-ended questionnaire completed by 263 tourism students who created a tourism promotional video as part of an ESP course. Although they were from different semesters, students shared common requirements for producing promotional videos. While the specific requirements for the videos varied by semester, all students involved in the data collection had experience creating tourism-promotional videos, as shown in their questionnaire responses. The project required students to create tourism-promotional videos in English in groups. They were given the freedom to select videos that were student-centered, market-centered, or organization-centered [21]. The questionnaire explored students' digital skills [22] and 21st century skills [23]. The data were analyzed thematically, and instead of presenting raw quotes, I summarized and categorized the students' responses into themes for ease of understanding.

3   Results

Students' performance in DMC relies heavily on their digital skills. To create meaningful, engaging, and effective digital multimodal products, students should be skilled in employing various digital tools and platforms to integrate different modes of meaningful communication. DMC requires robust digital skills. In addition, DMC practices encourage and enhance the acquisition of important 21st-century skills by offering practical scenarios for applying these talents in digital settings. DMC practices help build and use several essential 21st-century skills. Therefore, the results of this study are presented in subsections detailing students' digital skills and 21st-century skills developed during video creation.

3.1   Digital skills framework during Video Projects in ESP Course

English is required for communication in tourism promotion through videos. This facilitated the introduction of tourist destinations through social media. The ability to make videos also increases the likelihood of getting a job in tourism that requires English-language skills. In addition, creating videos for promotion strengthens public speaking skills. This is because videos help practice confidence in public speaking. Video projects enhance students' language practice. Creating videos requires students to use English to actively improve their speaking and pronunciation skills. This involves preparations and practices that improve students' familiarity with and immersion in English. They may have learned pronunciation through AI-assisted pronunciation practice or online dictionaries. This trains them to imitate native speakers, which smoothens their speech.

   Technological proficiency is another important element that must be considered in video production projects. Insufficient technological proficiency hinders students from creating effective digital multimodal compositions. Students develop technical skills alongside language skills using video editing software and tools. Video projects immerse students in real-world applications. It provides practical experience and real-

world applications for English, thus making learning more relevant. The students were required to conduct the research before initiating their project. This provides them with information and experience related to tourism-specific industries. This adds to their knowledge of recent updates in the tourism and hospitality industries. They also utilized various applications, the Web, and platforms to provide information and edit videos. Their skills in finding information led them to question the most appropriate information that they could integrate into their videos. This trains them to become critical consumers of information. Even after they found the most appropriate information, they learned how to avoid plagiarism, since all tasks given at courses require originality. Engaging in digital practice through such activities trains students to become critical content creators who create content for various purposes. Thus, when they are ready to publish their products online for public consumption, they collaborate as critical producers and consumers of digital information.

Open universities [22] have created a digital skills framework that divides key skills into five categories. The results of the thematic analysis of the student responses are presented in Table 1. The table shows the students' digital skills that support their DMC. Because DMC requires robust digital skills, the table infers that the participants in this study possess the capability to engage in digital practice, which leads them to produce meaningful and purposeful multimodal products.

Table 1. Digital skills during video production

No	Digital skill categories	Themes from students' responses
1	Understand and Engage in Digital Practices	Use of video editing skills
		Aesthetics and visual appeal in videos
		Use of animations and special effects
		Clarity and organization in video presentation
		Use of mobile devices for video creation
		Legal and ethical considerations in digital content
2	Find Information	Identifying key sources of information
		Effective use of search engines
		Planning and adapting search strategies
		Keeping up-to-date with current information
3	Critically Evaluate Information	Evaluating video content quality
		Relevance of online tools for video creation
		Providing constructive feedback on videos
		Judging the reliability and validity of video sources
4	Articulate Principles of Legal and Ethical Behaviour in Online Contexts	Understanding plagiarism in video content
		Creating and using proper references in videos
		Recording and citing sources accurately
5	Collaborate and Share Digital Content	Sharing videos with peers
		Online collaboration in video projects
		Accessing and using social media for video promotion

3.2   21st Century-Skills in Video Production

The essential subjects and interdisciplinary themes of the 21st century are supported by three skill sets most sought after in today's world: learning and innovation skills, digital literacy skills, and career and life skills [23].

In this study, learning and innovation skills refer to learning to learn and innovate, critical thinking and problem-solving, communication and collaboration, and creativity and innovation. Video production supports students' learning and innovation skills. This encourages students to produce something authentic and contextual. Students may construct their original ideas or modify what was previously made. They used their critical thinking skills to produce interesting promotional videos. Planning, scripting, and editing videos enhances critical thinking and problem-solving abilities as well as students' ability to write in English. They learn to connect ideas to draw a holistic picture of the topic on which they are working.

In addition, video-making fosters collaboration and teamwork. Working on video projects encourages collaboration and improves communication skills. Video assignment was typically performed in the groups. This allowed the students to practice their communication and interpersonal skills. Students were also trained in effectively conveying thoughts and ideas, active listening, and nonverbal communication during the group discussions. They must hone their collaborative skills to complete a project based on timelines. Interpersonal relationships are what makes a group work. Students will work on their relationships to finish projects. This trains them to engage in and trust their teams cooperatively in sharing jobs.

In this study, digital literacy skills were divided into information, media, and ICT literacy skills. Using technology during video making also increases students' engagement and motivation. Video creation can make learning more enjoyable and engaging. This attracts students to commit to the activity and fosters creativity and innovation. Students can explore their creativity while making videos, leading to a deeper connection between their language and technological skills. They find videos from which they can obtain inspiration and modify them according to their needs. This reflects students' media and information literacy. In this study, information literacy was demonstrated in students' efforts to discover, evaluate, and use information from multiple sources on the Internet to create accurate and informative video material. They also considered the impact of the information presented in the video on the audience. This ensures that producers and consumers of a video can critically evaluate its content and discern consumers and producers in the media.

Career and life skills are divided into flexibility and adaptability, initiative and self-direction, social and cross-cultural interactions, productivity and accountability, and leadership and responsibility. During video projects, students are ready to plan changes whenever they do not work. exhibited flexibility and adaptability during this stage. In addition, during product making, the students adjusted the video and content to be more relevant to the target audience. Although the projects are in group, video-making hones students' initiative and self-regulated learning skills, since they need to plan, execute, and evaluate their learning to match the group's goal. Students are also exposed to different cultures and contexts when visiting videos for inspiration. This unintentionally directs students to be culturally and contextually aware of cross-cultural understanding. Respect has become essential in digital interaction, and students sometimes learn

unintentionally through online interaction. Additionally, students become productive as they create products that represent their ideas through video projects. At the end of the project, instructors can assess how students demonstrate responsibility for completing their products, both as individuals and members of a group.

Table 2. Digital skills during video production

No	21st-century skills		Descriptions from students' responses
1	Learning and Innovation Skills	Learning to Learn and Innovate	Creating video content is not only a product; it is also a process that allows students to become more comfortable with skills such as photography/videography, on-camera speaking/awareness, and editing techniques. This process makes it easier for students to study, learn, and understand productively.
2		Critical Thinking and Problem Solving	The clear delivery of these techniques, by covering subjects relevant to the topic, produces a video that is simple and effective in understanding topics that increase critical thinking along with problem-solving skills.
3		Communication and Collaboration	Multiple people involved in the making of a video assist with collaboration and communication, both important factors for good learning that also make it engaging and fun.
4		Creativity and Innovation	Demonstrating clear delivery using examples that are relevant to audiences will make the video easier to understand, with little practice, and help develop critical thinking and problem-solving skills.
5	Digital Literacy Skills	Information Literacy	Develop skills in finding, evaluating, and utilizing information from various sources on the Internet to create accurate and informative video content.
6		Media Literacy	Learn to watch/produce media critically, identify bias, and assess the accuracy of what we hear/read.
7		ICT Literacy	Incorporating trendy social media elements such as sound or filters for videos makes it more relatable and attractive to enter this modern era.
8	Career and Life Skills	Flexibility and Adaptability	Matching the style and content of your video to suit its target audience will render your videos more relevant.
9		Initiative and Self-Direction	These projects enable students to earn independently, combining the qualities of initiative and self-direction.
10		Social and Cross-Cultural Interaction	Adding culturally different elements to videos will help social interactions and broaden our culture.
11		Productivity and Accountability	Videos that are effective and efficient in conveying messages help increase learning productivity and promotion.

12	Leadership and Responsibility	Making videos trains public speaking skills and increases the sense of responsibility for a project.

4   Discussion

New literacies are emerging, centered around the affordances of new technologies for hybrid and multimodal textual creation [24]. In the twenty-first century, literacy meant being able to communicate multimodally [25]. With the increasing importance of multiliteracies, a pedagogical framework is needed to support students' DMC, such as video production, in the classroom [26]. DMC is an effective approach and key method for advancing EFL students' multiliteracies in today's digital era [27]. While completing DMC tasks, EFL learners spend more time on video creation, focusing on idea generation and language issues, and assembling different semiotic resources to construct meaning [28]. This confirms my previous studies [29,30] that video projects raise students' attitudes toward learning, particularly English language learning, as it provides students with an authentic environment for using the language.

Promotional videos are multimodal compositions that utilize a range of modes and technologies, such as written and spoken language, visuality, aurality, and spatiality, to create and communicate meaning [21]. DMC can motivate students more than traditional print-based texts [31]. Research on DMC highlights its potential as an engaging, motivating, autonomy-boosting, voice-enhancing, and authentic activity for L2 writers [16]. Script-writing, acting, and video editing enhance their multiliteracies to varying extents and improve their language skills, such as vocabulary, speaking, translation, and writing [17]. DMC enhances student engagement in English learning [27]. It can foster creativity through technology, offer new learning opportunities, and enhance students' social awareness [27]. DMC practice is believed to boost language learners' autonomy, promote peer collaboration, improve English speaking and writing skills, integrate various semiotic resources for meaning-making, connect with real audiences, increase reader awareness, and foster creative motivation [28]. In addition to providing access to various tools, DMC often allows students to include interactive elements (e.g., social media and blogs), helping them see how their work is received [31].

The ability to create videos plays an important role in today's digital culture. Promotional videos in higher education are key to introducing new students and showcasing their roles and purposes [21]. Digital media such as videos are the main means of reaching and influencing global audiences. The tourism industry relies heavily on its ability to communicate and present information in an engaging and clear manner. Students boosted their communication skills by making videos for online audiences [32]. Students' ability to communicate effectively in English and create videos can increase their attractiveness to employers in this sector. Acting taught students how to effectively integrate different modes, whereas video editing helped them coordinate various semiotic modes and address technical challenges using resources from tech-savvy users [17]. Video is key tool for promoting tourism destinations with visual storytelling and a key tool in digital marketing through platforms such as social media.

Digital skills in producing videos are important in various types of tourism jobs. DMC increases students' social awareness [27]. The video-making process boosts both language learning and cultural engagement [17]. All modes are shaped by cultural, historical, and social contexts, giving each mode a unique meaning to potential and communicative functions [3]. This indicates that creating video projects also increases students' cultural awareness. Students' multicultural competencies to prepare for career challenges in an increasingly globally connected tourism industry.

5   Conclusion

In the digital age, student-authored digital multimodal composing in the form of digital video as a learning tool is relevant to scaffolding students' language learning, digital skills, and 21st century skills. This study highlights the relationship between students' English language skills and digital skills appropriate for the future of the tourism industry. Digital media such as videos are the main means of reaching and influencing global audiences. Digital media provides an opportunity for students to practice and improve their English language skills in an interactive and engaging context. The ability to create videos plays an important role in today's digital culture. Video is not only a key tool for promoting tourism destinations with visual storytelling, but also a key tool in digital marketing through platforms such as social media. These implications are also relevant in English education, where integrating technology into multimedia learning, including video production, enhances students' multicultural competencies to prepare for career challenges in an increasingly globally connected tourism industry. The findings of this study are expected to contribute to developing a more effective curriculum for higher education, particularly in English and tourism-related study programs.

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