Global Journal of Education and Allied Research (GJEAR)
Volume.14, Number 7; July-2023;
ISSN: 2837-3707 | Impact Factor: 7.80
https://zapjournals.com/Journals/index.php/gjear
Published By: Zendo Academic Publishing

FOSTERING SOCIAL ENGAGEMENT IN ONLINE LEARNING: LESSONS FROM AN ADULT ESL PROGRAM IN FLORIDA

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Article Info

Keywords:
Online Education, Social Infrastructure, Covid-19 Pandemic, Technology-Based Learning Tools, Adult Esl Program

Abstract

The COVID-19 pandemic catalyzed a significant shift in education, highlighting the necessity of enriched social aspects within online learning environments. This study investigates the potential of the internet and related technology to function as effective social infrastructure in online education. During the pandemic, students encountered mental health challenges due to the abrupt transition from in-person to online learning, emphasizing the importance of social connections. This research applies Bielaczyc's social infrastructure framework to an adult English as a Second Language (ESL) program in Walton County, Florida, which swiftly adopted online learning amid the pandemic. The framework comprises four interconnected dimensions: cultural beliefs, practices, socio-techno-spatial relations, and interaction with the outside world. We explore the application of this framework to the online ESL program, wherein Zoom and the internet serve as the primary technology-based learning tools. By investigating how these dimensions operate collectively, the study sheds light on effective strategies to integrate technology-based learning tools while nurturing a conducive social infrastructure. This research contributes to the existing literature by offering a practical perspective on employing Bielaczyc's framework in the context of pandemic-induced online education.

1. INTRODUCTION

The COVID-19 pandemic harshly affected many areas including in-person and online education. Although many educational institutions at all levels offered online learning programs prior to the COVID-19 pandemic, the pandemic illuminated the need for an enhanced social component in online education [1,2]. During the pandemic, many students experienced mental health concerns such as depression and anxiety as a result of undergoing an abrupt transition from in-person learning to online learning and the loss of social contact this transition entailed

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[3, 4, 5, 6, 7, 8, 9, 10]. These mental health concerns raise the question of whether and how the internet and related technology can also serve as an effective form of social infrastructure for students and instructors participating in online education.

Social infrastructure is generally defined as the physical places and organizations that shape the way people interact [11]. Social infrastructure does not equate to social capital but instead consists of the physical conditions that determine whether social capital develops. Social infrastructure may be discussed more specifically in relationship to education and technology.[12] find that online learning is not only a cognitive process but is also situated within a social context. [13] contend that technologies for learning have considerable social infrastructures. [14] defines social infrastructure as the social structures that support learning with a technology-based learning tool.

Bielaczyc developed the social infrastructure framework to make instructors' decisions affecting social structures clear and to organize them into a methodical framework that highlights key classroom design elements. The framework explores dimensions of social infrastructure needed to integrate technology-based learning tools into classroom practice, because successful learning environments with technology-based learning tools extend beyond the tools themselves to include the design of social infrastructure. The four dimensions of the social infrastructure framework include the cultural beliefs dimension, practices dimension, socio-techno-spatial relations dimension, and interaction with the outside world dimension. Although defined separately, the four dimensions of the framework operate interdependently [15].

This paper adds to the existing literature surrounding Bielaczyc's social infrastructure framework by applying the framework to an adult education program during the COVID-19 pandemic. Specifically, the purpose of this paper is to describe Bielaczyc's social infrastructure framework and to apply the framework to an adult English as a Second Language (ESL) program in Walton County, Florida that was forced to quickly implement online learning because of the COVID-19 pandemic. In this paper, we examine the internet and Zoom more specifically as the technologybased learning tool used in the online ESL program. In the first section of this paper, we describe the four dimensions of the social infrastructure framework.

2. THE SOCIAL INFRASTRUCTURE FRAMEWORK: THEORY

2.1. The Cultural Beliefs Dimension

The cultural beliefs dimension serves as the first element of the social infrastructure framework and refers to the mindset that shapes classroom life. When one designs an online adult education classroom, the framework calls for the consideration of four areas of cultural beliefs. The first area involves how learning and knowledge are conceptualized, and this conceptualization concerns how students and instructors view the process of learning. An appropriate online learning environment involves students as generators of knowledge rather than an environment where knowledge is considered fixed or owned by the instructor [16].

The second and third areas of cultural beliefs include consideration of how a student's social identity is understood and consideration of how an instructor's social identity is understood. The conceptualization of a student's social identity refers to how students view themselves as learners as well as how they view other students in the class and others in their social network with regard to their own learning. For example, students might see other students as learning resources, team members, or competitors. An instructor's social identity involves the way instructors view themselves and the way students view the role of instructors in the learning process. Introducing a technology-based learning tool such as the internet into the classroom has been shown to move an instructor's role from a central authority figure to a facilitator [17].

The fourth area of cultural beliefs involves how students and instructors view the purposes and uses of a particular technology-based learning tool which is the internet and Zoom in the case of this paper. Cultural beliefs concern questions about how students are meant to use the tool to carry out learning objectives. Another question involves how the tool will fit into the overall workings of the classroom [18].

2.2. The Practices Dimension

The practices dimension of the social infrastructure framework involves the ways that instructors and students participate in both online and offline learning activities relating to the technologybased learning tool. When instructors explore this dimension of classroom design for online adult learners, they need to consider four areas

that include student activities, participant structures of students, participant structures of teachers, and coordinating on-tool and off-tool activities. In selecting student activities, instructors need to determine whether student activity selection will be left open to students or whether it will be semistructured or tightly controlled. When they design student participant structures, instructors need to decide if students will work individually or in groups and how the work will be organized. Instructors also need to consider their own participant structures. For example, teachers might observe or intervene in student learning activities. Teachers might also serve as a coach, role model, or discussion leader. Finally, instructors need to coordinate on-tool activities that use the technology-based learning tool and off-tool learning activities that take place away from the tool. Blending on-tool and off-tool learning activities allows students to appreciate how what they are learning with the technologybased tool transfers to the real world. This type of blending also provides multiple forms for learning [19]. Although participant structures in the online classroom vary, the social infrastructure framework's practices dimension proves consistent with the claim that instructors serve as initiators of interpersonal or social processes in the classroom [20].

2.3. The Socio-Techno-Spatial Relations Dimension

The socio-techno-spatial relations dimension refers to how the organization of physical space and cyberspace support student interaction with the technology-based learning tool. This paper focuses on student-teacher-cyberspace configuration sand cyberspace-physical-space relations as the design considerations for this dimension. The student-teacher-cyberspace configurations design consideration proves relevant when students are able to interact online. Instructors should consider whether students work separately or collaboratively in cyberspace, how student products are organized in cyberspace, and whether student online work is visible to all or whether students have private work areas in cyberspace. Instructors also need to consider their own use of the technology-based learning tool and their own configuration in cyberspace. A question to be answered includes whether instructors should be online and use the learning tool themselves. The cyberspace-physical-space relations design consideration focuses on the ways that students' physical world is brought into cyberspace and vice versa. Aspects of students' physical world may be brought into cyberspace for a number of reasons including giving students more ownership and deepening their relationship to their online work [21].

2.4. The Interaction with the "Outside World" Dimension

The interaction with the outside world dimension involves how students interact, both online and offline, with people outside their immediate classroom context. Key aspects of student interaction with the outside world include bringing in knowledge from the outside, extending the audience for student work, and interacting with others. Instructors might bring in knowledge from the outside by having experts in a chosen field visit the virtual classroom. Extending the audience for student work might involve students making virtual presentations to an outside audience. Interacting with others involves students engaging in bidirectional interactions with the outside world such as virtually exchanging ideas with peers in other locations [22].

3. THE SOCIAL INFRASTRUCTURE FRAMEWORK: APPLICATION

3.1. Background

In this section, we describe the application of the social infrastructure framework to an online adult ESL program in Walton County, Florida. The population in Walton County is growing quickly, and the county is one of the top ten counties in the United States in percentage growth from 2017 to 2018 [23]. A faith-based organization operates Walton County's ESL program to help immigrants obtain the language skills necessary to function in their new home and become citizens of the United States. Walton County attracts students in the ESL program due to the county's economic opportunities. Many immigrants, mostly Spanish speaking, have come to Walton County to take service sector jobs created by increased tourism and population growth. Immigrants often learn about potential job opportunities in Walton County from family members or friends already living there.

Prior to the COVID-19 pandemic, the Walton County ESL program offered in-person classes on Tuesday mornings and evenings. The ESL program offered courses from beginning to advanced levels and placed students based on pre-enrollment assessments. The program scheduled and coordinated holidays, seasonal breaks, and summer vacation with the local school system calendar. Once students completed the ESL courses, they also were

offered a course to help them prepare for the United States Citizenship Examination. The logistics of the courses changed drastically with the COVID-19 lockdown in mid-March 2020.

By late summer 2020, the organizers of the Walton County ESL program began to make plans to resume instruction in the fall. The program leadership and a vast majority of the instructors preferred an online rather than in-person format due to continued threats from COVID-19. With some limited assistance from a statewide faith-based ESL coordinating organization, the Walton County group decided to use Zoom as the primary technology-based learning tool for online instruction. The remainder of this section will illustrate how the various dimensions of the social infrastructure framework outlined at the beginning of this paper have or have not guided the development of the program's online ESL instruction.

3.2. The Cultural Beliefs Dimension

The learning process for Walton County's ESL program prior to the onset of COVID-19 was conducted as part of a larger education and socialization process. The weekly in-person instruction began with food, songs, and fellowship. Childcare services were provided, and class members were encouraged to bring their children. Participants who had reached an advanced degree of knowledge in the program would often serve as mentors to new students. Instructors designed learning activities to encourage interactions within individual classrooms in order for students to learn from one another. As a result, students served as generators of knowledge and learning resources for each other in the ESL program's in-person learning format.

The first task in the ESL program's move to an online environment was to ensure that students would participate in the program. To this end, the Walton County ESL group developed an extensive outreach program to encourage student participation. The retention of existing students was given priority over the recruitment of new students. In addition, to enhance teachers' use of the Zoom learning tool in the online classroom, the sponsoring organization gave them Zoom subscriptions and instruction in its use. It also encouraged teachers to attend statewide workshops on remote instruction via Zoom. Instructors encouraged students to view the purpose and use of the Zoom learning tool as the means that would allow instruction to continue and friendships to flourish even in the absence of in-person contacts.

Despite these efforts, the abrupt move to online instruction negatively impacted the social identity of both students and teachers. Students who previously viewed their instructors as knowledgeable friends and facilitators who helped with the learning process in the in-person program now saw them only as remote faces appearing via Zoom on a computer screen or tablet device. In the Walton County ESL program's online setting, instructors were deprived of the informal interactions with students that allow them to form strong personal relationships and tailor instruction to individual needs. In the case of this program, the introduction of technology threatened rather than enhanced the favorable social identities of both students and instructors that served as the foundation of the in-person ESL program.

3.3. The Practices Dimension

The internet and a few of the digital tools associated with it have allowed the adult ESL classes to continue during the COVID-19 pandemic. Although Zoom conferencing has been the primary technology-based learning tool, other learning tools such as email and WhatsApp have proven to be valuable resources. Prior to the pandemic, the ESL program mainly used face-to-face contact as the means of outreach to potential students. During the pandemic, email allowed instructors and course organizers to contact potential students to inform them of available online ESL opportunities. Instructors and students also utilized WhatsApp as a means of communication between instructional sessions.

Moving instruction from in-person classroom sessions to online Zoom sessions required adjustments to student activities and the participant structures of students and instructors. Prior to the pandemic much of the in-class instruction involved students interacting with one another and the instructor. Instructors teaching via Zoom had to adjust course materials to facilitate more individual work. The new format and materials have resulted in much less interaction between students. Instructor interaction with students has become more formal and individually directed, and informal and spontaneous interactions with groups of students have greatly decreased.

3.4. The Socio-Techno-Spatial Relations Dimension

The ESL program's initial move to online instruction occurred due to fears about the spread of the COVID-19 virus. Many of the students enrolled in the ESL program were at high risk of contracting COVID-19. Consequently, one of the major motivations for moving to a virtual classroom was to separate students from one another and from the instructor. Planning regarding the socio-techno-spatial relations dimension that might have accompanied a more traditional transition to remote learning did not happen due to the unique and time-sensitive nature of the transition required during the pandemic.

The Zoom platform, chosen as the preferred method of instructional delivery, did not allow for extensive online interactions among students in the program. Traditional online learning management systems, such as Blackboard, have features that allow groups of students to interact in a cyber-classroom setting. The Zoom system allows some student interaction. However, instructors were not experts in utilizing it for sub-group interactions. Therefore, most of the work in the Zoom classroom involved individual interactions between the student and the instructor.

3.5. The Interaction with the "Outside World" Dimension

The desire to socially distance during the COVID-19 pandemic served as the primary factor that led the ESL program to transition to an online learning environment, and it severely limited any efforts to interact with the outside world in an offline setting. Volunteers comprised the entire instructional staff for the ESL program, and the logistical challenges in arranging outside interactions in the online classroom substantially limited these interactions. As a result, students did not engage in bidirectional interactions with the outside world in either an online or offline setting throughout their online ESL education during the pandemic.

4. CONCLUSION

The purpose of this paper was to describe the social infrastructure framework and explore its application in the design and implementation of an online adult education program that abruptly transitioned to the use of Zoom for instructional purposes. The framework was retroactively applied to an online adult ESL program in Walton County, Florida that was forced to implement online learning due to the COVID-19 pandemic. Although it was more abrupt, the process of transitioning to an online learning environment in the adult ESL program involved a trajectory of change for both students and instructors which is consistent with findings in the literature [24].

The Walton County ESL program case study also proved similar to some efforts at all levels of education forced to rapidly implement online learning as a result of the COVID-19 pandemic. Due to the pandemic, the ESL program's primary concern was to move online quickly without giving much forethought to the social infrastructure that would make technology based online learning efforts successful. The results and satisfaction levels of the program's pandemic forced move to online learning are mixed at best. However, educators should not use the results of this sudden COVID-19 induced move to online learning as a justification to discontinue future attempts to educate students remotely. In addition,[25] noted the significance of school administrators during the COVID-19 pandemic, and [26] found that school principals' use of digital technology during the pandemic was considered adequate according to teachers, indicating that effective leadership was important in implementing technology during the pandemic. In the case of the Walton County ESL program, there was not an identified leader driving the use of technology during the pandemic which may have also influenced this study's results.

In addition, abruptly designing an online adult education program during a pandemic is specific to a particular and hopefully rare time and place [27]. Thoughtfully developing and designing online education programs based on a sound social infrastructure framework should improve the online learning experiences of adult education students and other students. Future research might examine the social infrastructure framework when applied to online adult education programs that have been carefully designed under more normal post-pandemic circumstances.

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