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Online instruction for a humanized learning experience: Techniques used by college instructors

Qiujie Li *, Maricela Bañuelos, Yujia Liu, Di Xu

University of California, Irvine School of Education, 3200 Education Dr., USA

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ABSTRACT

The online learning literature converges to suggest that a "humanized" learning experience is critical to student engagement, where student agency, instructor presence, and peer presence have been nominated across a number of studies as key elements of a humanized online learning experience. Despite theoretical support, description of specific implementation techniques used by instructors to enhance these elements is limited. Based on an extensive review of the literature, this study developed a coding scheme of humanization practices and conducted content analysis of 244 excerpts of teaching practices from 17 online courses that demonstrated high levels of humanized instruction out of 100 randomly selected online courses at a large community college. The results reveal eight techniques that instructors used to humanize their online courses. These techniques indicate that to offer students a humanized learning experience, it is critical for instructors to make consistent and regular efforts throughout the course, promote social and academic presence in an integrated way, and proactively guide student social-emotional communication. These techniques, along with the concrete examples, lay a groundwork for future research about the relationship between humanization techniques and student outcomes in virtual environments and provide actionable guidance on how to humanize an online course.

1. Introduction

Despite the rapid growth of and high hopes for online learning to increase access to higher education (Xu & Xu, 2020), existing research has consistently identified large performance gaps between online and in-person instruction in semester-long college courses, particularly for students from minoritized groups at community colleges (Hart et al., 2018; Xu & Jaggars, 2014). The current literature converges to indicate that one major challenge to student success in online environments is the greater difficulties in providing a "humanized" learning experience, where an individual is perceived as a "real" social agent and feels connected with others in a classroom community (Czerkawski & Schmidt, 2017; Gleason, 2021; Mehta & Aguilera, 2020; Pacansky-Brock et al., 2020; Sim, 2017).

In virtual environments, interpersonal interactions rely on computer-mediated communication, which is often text or graphic based and lacks auditory inflections and visual cues that are critical components of in-person communication. This not only imposes barriers to effective communication, but may also lead to feelings of isolation and low levels of engagement in online courses (Berge & Collins, 1995; Chen & Wu, 2015; Yamada, 2009). Accordingly, researchers and practitioners have consistently emphasized the need to "humanize" online learning, where instructors make intentional efforts to enhance the extent to which students feel they are understood and perceived as a real person and are connected to the learning community (Bolliger et al., 2010; Czerkawski & Schmidt, 2017;

* Corresponding author.
E-mail addresses: qiujiel@uci.edu (Q. Li), maricelb@uci.edu (M. Bañuelos), yujil12@uci.edu (Y. Liu), dix3@uci.edu (D. Xu).

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Pacansky-Brock et al., 2020; Qiu & McDougall, 2015).

Multiple theoretical frameworks, including the widely known "Community of Inquiry" framework (CoI, Garrison, et al., 1999), have discussed what a humanized online course should incorporate (e.g., Lindgren & McDaniel, 2012; Pacansky-Brock et al., 2020 Weiss, 2000). Across these frameworks, sources differed widely in their conceptions of the key elements of a humanized course. However, when viewed in broad strokes, three elements emerged as essential in most sources: student agency, instructor presence, and peer presence (e.g., Garrison, et al., 1999; Lindgren & McDaniel, 2012; Rovai, 2002). In addition to theoretical discussions, a small but growing number of studies have provided empirical support to the importance of these three elements, either though students' and instructors' perceived value of addressing them in an online course (e.g., Borup et al., 2012; Picciano, 2002; Sheridan & Kelly, 2010), or by exploring the relationship between how well these elements are addressed and student outcomes (e.g., Caskurlu, et al., 2020; Lindgren & McDaniel, 2012).

While the current literature has converged on the importance of addressing the three elements mentioned above and has recommended a wide variety of instructional practices instructors could use, rarely did the current studies provide implementation details or guidance on these practices. For example, a number of studies have described the use of collaborative learning opportunities to address "peers presence" (e.g., Margaryan, et al., 2015; Martin & Bolliger, 2018). Yet, these studies have mainly focused on the presence of this practice or frequency of its usage without delving into how specifically it is implemented in teaching (e.g., how did the instructor scaffold the collaborative process). The lack of implementation guidance and details adds difficulty for new instructors to incorporate recommended practices in their online courses efficiently and effectively.

To address this gap, this study examines specific ways through which college instructors implemented various strategies recommended by the literature to humanize their online course.[1] To achieve this goal, we drew on the existing literature to create a coding scheme of humanized online instructional practices and used the instrument to observe 17 online courses that demonstrated high levels of humanized instruction out of 100 randomly selected online courses at a large community college. Multiple implementation techniques emerged from instructor application of humanization practices. These techniques, along with the concrete examples, lay a groundwork for future research about the relationship between humanization techniques and student outcomes in virtual environments and provide actionable guidance on how to humanize an online course.

2. Literature review

Humanizing online learning has been defined as the use of strategies and practices to incorporate students and instructors as social agents into the learning process and enable them to feel connected with each other (Czerkawski, & Schmidt, 2017; Gleason, 2021; Mehta & Aguilera, 2020; Pacansky-Brock et al., 2020; Sim, 2017; Weiss, 2000). The literature on humanization of online learning is derived from three related lines of research. *The first* draws on the academic motivation literature that suggests that motivation is fostered when individuals' voices are heard and choices are respected. Accordingly, a humanized environment should be one that provides choices to students as well as opportunities to reflect on their own learning (e.g., Kahn, 2017; Serdyukov, 2015; Walker, 2005). *The second* draws on the CoI framework and conceptualizes humanization of online learning as incorporating three components, cognitive presence (defined as students constructing meaning through communication), social presence (defined as participants in the learning community project themselves to others as "real people" and being socially connected with others), and teaching presence (defined as participants actively designing and facilitating educational experiences) (e.g., Cox-Davenport, 2014; Sanders & Lokey-Vega, 2020). *The last line of research* is prompted by the growing evidence that traditionally disadvantaged students (e.g., racial minority students and first-generation students) tend to struggle more in online courses than other students (Barber et al., 2021; Hart et al., 2018; Xu & Jaggars, 2014). This line of research has paid special attention to instructional practices that respect student diversity, support equity, and promotes inclusion (Hannon & D'Netto, 2007; Mbati, 2021; Pacansky-Brock et al., 2020). For example, Pacansky-Brock and colleagues (2020) draw on the frameworks of Culturally Responsive Teaching and Universal Design for Learning to design online teaching practices that respect, support, and value diversity.

The three lines of literature differ in their conceptualizations of humanization in online learning. Yet, across multiple frameworks and models, three elements are consistently emphasized as essential for humanizing online learning experiences: student agency, instructor presence, and peer presence. Below, we explain in more detail each of the three elements, their relationship to humanization and student academic outcomes in online courses, and instructional practices that are promising at promoting each element.

2.1. Student agency

Agency (i.e., autonomy) is considered an innate psychological need of human beings to act freely on one's own will (Deci & Ryan, 2000; Lee et al., 2015). Student agency is commonly defined as students engaging in intentional and self-determined learning activities (Lindgren & McDaniel, 2012; Luo et al., 2019; Martin, 2004) and has been suggested as a critical element of a humanized educational experience (Kahn, 2017; Serdyukov, 2015; Walker, 2005). The importance of student agency is grounded in motivational theories that students feel a sense of purpose and responsibility and thus will work hard when engaging in activities that are relevant to and/or determined by themselves (Deci & Ryan, 2008; Lindgren & McDaniel, 2012). Prior research, in both face-to-face and online contexts,

[1] In this paper, "practice" and "strategy" are used interchangeably to refer to the means by which instructors humanize their online courses (e.g., assigning group work to enhance peer presence). We further use "techniques" to refer to detailed implementation features of a certain humanization practice or multiple practices.

has documented positive associations between students' sense of agency and their motivation, engagement, and performance (Chen et al., 2010; Deci & Ryan, 2008; Lindgren, & McDaniel, 2012; Luo et al., 2019).

Prior research has offered four main guidelines to support students' agency in online courses. First, it is important to provide choices of course content and learning activities and allow students to work on coursework that accounts for individual needs and interests (Hartnett, 2015; Lindgren & McDaniel, 2012). For instance, Hartnett (2015) found that online students' perception of limited choices was reported as a key factor in undermining their sense of autonomy. In contrast, Lindgren and McDaniel (2012) surveyed students in an online course that offered multiple choices for weekly topics and found that students rated positively the opportunity to choose content. The second type of instructional practices to support students' sense of agency focuses on articulating and communicating the rationales behind the design of the course and its requirement for students (Lee et al., 2015). This would enable students to clearly understand the relevance between an assigned activity or material to learning goals (Deci & Ryan, 2000; Lee et al., 2015; Ricoeur, 1966). Thirdly, researchers have also highlighted the importance of valuing and incorporating student voice into the course to enhance student agency (Cook-Sather, 2020; Moses et al., 2020). For instance, obtaining feedback from students can allow instructors to better attend to students' needs and increase student satisfaction (Blau & Shamir-Inbal, 2018; Parkin & Henderson, 2014). Finally, student agency is strengthened when students regulate their own learning processes (Zimmerman, 1989). Accordingly, to scaffold student agency in online courses, some researchers suggest supporting students to specify their own learning goals, make plans for learning, and reflect and adjust their learning processes (Ribbe & Bezanilla, 2013).

2.2. Instructor presence

Instructors play an indispensable role in humanizing students' online learning by setting up the learning environment and facilitating engagement. Studies demonstrate that student perceptions of the instructor's presence in an online setting are significantly correlated with their motivation, perceived learning performance, and overall learning satisfaction (Baker, 2010; Picciano, 2002; Russo & Benson, 2005). Yet, unlike in-person class where instructors can utilize their physical presence as a signal of their active involvement, instructors in an online environment must proactively participate in the course to show presence (Carstens & Worsfold, 2000). Existing literature has suggested specific ways to enhance instructor presence in online settings, which can be roughly divided into two major categories: instructor social presence and instructor academic presence.

Instructor social presence is defined as instructors developing social and emotional connections with their students, and has been incorporated in CoI (Garrison et al., 1999; Watson et al., 2016) and other related work about instructor immediacy (i.e., instructor behaviors that convey psychological closeness, Mehrabian, 1971; Gorham, 1988). Prior studies have documented the critical role that instructor social presence plays in student course satisfaction (e.g., Richardson & Swan, 2003; Wise et al., 2004) and identified two categories of practices that can enhance it (e.g., Paquette, 2016; Watson et al., 2016). First, self-disclosure, such as instructors sharing personal stories and expressing feelings, has been recognized as an important approach to help students understand and feel related to their instructors (DiVerniero & Hosek, 2011; Watson et al., 2016; Weiss, 2000). Second, instructors can establish their social presence through creating a warm, caring, and cohesive atmosphere, such as addressing students by name, using greetings, offering encouragement, acknowledging student efforts and ideas, and caring for students' life situations (Paquette, 2016; Watson et al., 2016).

Instructor academic presence refers to instructors actively involving themselves in student learning processes and providing academic support in response to student needs, which roughly corresponds to the concept of "teaching presence" in the CoI framework (Garrison et al., 1999). Researchers have found positive relationships between instructors' academic presence and students' sense of learning community, satisfaction with online courses, and course performance (Baker, 2010; Jaggars & Xu, 2016; Shea et al., 2006; Young, 2006). The current literature points to two sets of practices that can potentially promote instructor academic presence in online courses. The first set of practices highlights the importance of infusing visual and media-rich teaching modes such as audio and video in content delivery and actively facilitating learning activities (Borup et al., 2012; Clark & Mayer, 2011; Mandernach et al., 2006). For instance, student interviews indicate that instructors using videos with their own images to deliver course content (compared to slides or text only) makes them more real and approachable to students (Borup et al., 2012; Richardson et al., 2016; Young, 2006). The second set of practices emphasizes the importance of an approachable and responsive instructor, which is often achieved when instructors invite student questions through various modalities, respond to student queries and emerging needs quickly, provide timely and constructive feedback, and regularly express encouragement and support (Jaggars & Xu, 2016; Martin et al., 2018; Sheridan & Kelly, 2010).

2.3. Peer presence

The third essential element of humanized online learning experience is peer presence, where a student feels connected with a community of peers and sees each other as "real" people. Creating a strong peer presence leads to two benefits. First, studies posit that friendships and social interactions with peers are key in enhancing student's sense of belonging in a course and can prevent early course withdrawal (Angelino et al., 2007; Liu et al., 2009; Rovai, 2002). Second, it has been found that group interactions centered on academic content promotes critical thinking, enhances students' understanding of content, and improves their course performance (Lane, 2016; Zainnuri & Cahyaningrum, 2017). However, due to the physical separation among students, online learning imposes greater challenges in achieving meaningful peer interactions, such as reduced levels of social cues and difficulties coordinating group activities due to different time zones (Angelino et al., 2007; Lane, 2016). A wealth of studies have identified promising strategies for enhancing peer presence in online courses, which can be roughly divided into social presence and academic presence (Martin & Bolliger, 2018; Rovai, 2002; Zainnuri & Cahyaningrum, 2017).

Peer social presence describes the extent to which students feel connected with their peers and see each other as real people. For example, one instructional practice that has demonstrated potential to improve peer social presence is icebreaker activities, such as self-introduction assignments (Martin & Bolliger, 2018). Further, it is critical for instructors to facilitate such social interaction since opportunities alone can be hampered by disrespectful and non-inclusive peer exchanges (Lane, 2016; Phirangee, 2016). For instance, a previous study found that when asked to share cultural experiences in an online course, some students who felt uncomfortable sharing experienced heightened feelings of disconnection from their peers and instructors (Rovai, 2002). This highlights the importance of instructors providing netiquette, or online guidelines on appropriate ways of interacting with peers, to promote benevolent and collegial dialogue and support the inclusion of students from diverse backgrounds into the learning community (Phirangee, 2016; Rovai, 2002; Zainnuri & Cahyaningrum, 2017).

Peer academic presence, refers to the extent to which students are provided with opportunities to learn through communication and collaboration with peers. Prior research suggests that it is critical for instructors to both provide opportunities for academic interaction among students and to facilitate such interactions. First, cognitive presence in COI refers to students' "exploration, construction, resolution and confirmation of understanding through collaboration and reflection in a community of inquiry" (Garrison, 2007, p. 65) and suggests the needs for students to collaborate with each other as well as provide academic support to each other (Lane, 2016). Examples of peer academic interaction activities include group assignments, peer discussion boards, and peer feedback; all forms can promote students' critical thinking, reflection, co-creation of knowledge, and sense of community (Palloff & Pratt, 2010; Zainnuri & Cahyaningrum, 2017). Additionally, peer academic presence hones in on how instructors' facilitation and direct instruction can enhance student collaborative group assignments and academic support. Studies have found that students tend to have a hard time moving beyond the exploration phase of cognitive presence without having clear shared goals and collaborative tasks (Garrison et al., 2001). Instructors can help students move through the phases of cognitive presence and have better quality peer collaborations (Brindley et al., 2009; Garrison, 2007). For example, one study found that online study groups were more effective and of better quality when instructors used strategies like having clear expectations and instructions, monitored students' progress, provided feedback, and provided guidance on how students could identify group members (Brindley et al., 2009).

In sum, prior research has laid the groundwork for examining how instructors implement humanized practices in online courses. These theoretical and empirical studies have established the importance of student agency, instructor presence, and peer presence for a humanized online learning experience and suggested a substantial number of practices that can enhance them. Drawing on these literatures, this study develops a coding scheme of specific instructional practices that humanize online courses to identify, examine, and learn from concrete examples of instructors implementing these practices in their teaching.

3. Methods

3.1. Research design

To examine online instructors' humanization practices, we used a qualitative content analysis approach, which compresses large quantities of data into content categories based on a predefined and theory-driven coding schema, which then allow researchers to identify patterns in the coded data (Schreier, 2012; Stemler, 2000). The key steps involved in content analysis include developing a research question, selecting data, developing a coding scheme and codebook, coding the data by assigning previously defined codes to raw data, iteratively modifying and adapting the coding schema in the context of the data, establishing intercoder reliability, and analyzing and drawing inferences from the data (Krippendorff, 2018; Schreier, 2012; Schwandt, 2014). Guided by our research questions, we developed a coding scheme through a theory driven approach (DeCuir-Gunby et al., 2011), where codes were developed based on our theoretical framework and the extant literature. After refining the codes in the context of and applying the codes to the data, we then used an inductive approach to analyze the excerpts of humanization practices and identify patterns in the data (Schwandt, 2014).

3.2. Context and participants

The data used in this study was collected in the fall semester of 2018 from one of the largest community colleges in North Carolina. This community college serves more than 70,000 students with a diverse student body. The student demographic consists of 49.3% white, 21.7% Black, 18.7% Latinx, 4.1% Asian, and 6.2% students identifying with other racial or ethnic groups. In recent years, this community college has taken steps to expand and improve online learning opportunities for students and is ranked as one of the best online community colleges in the United States, making it an ideal context to study humanized instructional practices.

Our study is under a larger project that intends to systematically understand how online courses are designed and taught at community colleges. To serve this purpose, the research team randomly selected 100 online courses from all online courses taught at this institution in the 2018 fall semester. A previous study under this project evaluated these 100 courses using an online course evaluation rubric that rated each class with regard to its design features in three areas, namely scaffolding the online learning process, promoting student agency, and improving instructor and student presence & interactivity (Authors,2020). The current study draws on the results from the initial evaluation of these courses and selects 17 courses that demonstrated high levels of humanized instruction addressing student agency, instructor presence, and peer presence. These courses represent a wide variety of disciplines including psychology, communications, mathematics, English, and business. The 17 instructors in our course sample had previous teaching experiences ranging from 3 to 17 years. All of the instructors had a Master's degree or higher.

3.3. The coding scheme and data collection

Our coding schema was developed based on the current literature to capture instructor behaviors or dispositions that contribute to the three key elements of a humanized course: student agency, instructor presence, and peer presence. The coding scheme was further iteratively revised in the context of the data and feedback from the research team. Finally, several codes and subcodes were created for each of the three element domains (see Appendix A for the full coding scheme). For example, the domain of student agency includes four codes: (i) enhance a sense of purpose for the course; (ii) respect individual differences and promote individual choice; (iii) facilitate ongoing student feedback; and (iv) opportunities for self-reflection. Each code further includes several subcodes.

Based on the coding scheme, we identified a total of 244 excerpts of humanized teaching practices from the 17 courses in our analytical sample. These excerpts were our basic unit of analysis and could appear in any place of the course, such as assignments/assessments, instructional materials, discussion board posts, an announcement, faculty information page, syllabus, and so on.

3.4. Data analysis

The data analysis consisted of two stages. In the first stage, the research team coded the 244 excerpts of teaching practice based on the coding scheme described above. For each excerpt, we went through all of our codes and determined if the excerpt showed evidence of using the practice. Four researchers were divided into two pairs to conduct data analysis, where one pair focusing on codes about student agency and the other pair focusing on codes about instructor and peer presence. The researchers first went through several rounds of practices to ensure that the group agreed on the labels and definitions of each code. Then, the two researchers in a pair coded each excerpt independently. Cohen's kappa value was calculated at four different points in order to make adjustments during the coding process to ensure high intercoder reliability.[2] Specifically, for each code we calculated a kappa value, whenever a kappa value was less than 0.6, the two original coders discussed the coding criteria and then re-coded all excerpts independently. Finally, the coding process yielded a high reliability, where all but one[3] code had a kappa value greater than 0.6 (Appendix B).

In the second stage, the research team consolidated the coded excerpts by identifying themes and patterns of humanization that were shared across multiple excerpts. All researchers first identified themes and patterns independently before the team discussion. The patterns and themes were iteratively revised until the research team reached consensus.

4. Results

The number of excerpts identified for a given code ranges widely 2 to 78. Yet, the majority of the codes (around 80%) had more than 10 excerpts, thus yielding sufficient data to understand how instructors implemented a given humanization practice. Overall, the coding process led to a total of eight techniques instructors used when applying humanization practices in their online courses. A description of the eight techniques and the relevant codes mapped to each technique is presented in Appendix C.

4.1. Techniques to enhance student agency

4.1.1. Motivate students by creating and maintaining a sense of purpose

Instructors identified multiple opportunities throughout the course to create and maintain students' sense of purpose for the course. Specifically, 80 excerpts from 15 courses demonstrated practices of enhancing student sense of purpose for either *the course overall* or *specific learning tasks*. Among these excerpts, around 15 excerpts from 8 courses focused on helping students endorse the overall utility of the course. Such practice, typically used at the beginning of a course, either explicitly explains the utility of the course or requires students to ponder themselves how the course may be useful based on their needs. For instance, in the first week of a course about communication (Crs4), the instructor sent students a video to explain that the course would cover communication skills that have implications in multiple areas of one's social life, such as friendship, romantic relationships, and professional life. It was up to the students to "*see which of those areas is the most important*". In a psychology course (Crs1), the instructor assigned a discussion forum activity at the beginning of the course, which asked students to reflect on "*how you think psychology will help you in your personal or professional life*".

In addition to helping students understand how a course might be useful to them overall, another 65 excerpts from 15 courses focused on enhancing students' sense of purpose for specific learning tasks. This may provide continuous motivational support to keep students engaged in the course. Some of the excerpts tried to achieve this goal by increasing the relevance of the task, such as aligning the task with students' backgrounds. For example, in an essay assignment about how culture shapes the way people communicate, students were instructed to compare the US with their ethnic country of origin (Crs10). Other excerpts tried to enhance students' sense of purpose by asking students to apply what they learned in the course to real life scenarios and explicate the utility of the skills and

[2] Specifically, Cohen's kappa is a parameter that measures agreement between raters corrected for chance agreement, where a value close to 0 indicates that there is no relationship between their ratings. For our project, we were interested in determining the reliability in terms of whether a code was applied to a given excerpt of teaching practice. The Cohen's kappa value was calculated after the first 30 excerpts were coded, then again after 67 excerpts, 127 excerpts, and finally after all of the 244 excerpts were coded. The kappa values calculated after coding all 244 excerpts are presented in Appendix B.

[3] The code had few excerpts coded as 1 so any disagreements greatly affected the kappa value.

knowledge acquired. For instance, in a course on art appreciation (Crs12), the instructor helped students to identify the usefulness of the key concepts in the course by asking students to develop their "*own criteria for understanding visual culture*" and apply these criteria to evaluate a piece of artwork.

4.1.2. Facilitate and encourage ongoing feedback from students

Student feedback gives students voice in how they learn and help instructors understand student learning experiences. A total of 15 excerpts from 8 courses promoted student voices by establishing a process to collect feedback from students periodically. Feedback from students in the middle of the course was typically used to examine how well the course was going, identify problems and challenges in the course in a timely fashion, and adjust course design and implementation to accommodate students' needs. For instance, in a mid-term survey (Crs7), the instructor asked questions related to various components of the course, such as course organization, content, and schedule, in order to understand "*what is and is not working*" for the students. In 5 other courses, instructors collected feedback from students through an end-of-course survey to identify ways to improve the course for its future iteration. For example, an instructor provided the following explanation for the importance of the end-of-course survey: "*I would like your feedback if there's any particular thing you like or do not like about the class. I make adjustments based on your feedback, so please be as honest and detailed as you can.* (Crs4)"

In 7 courses, the instructor used a variety of strategies to encourage student feedback, such as explicitly explaining the importance of having a voice, offering extra credit for providing feedback, and assuaging students' concerns of providing negative feedback. For example, one instructor (Crs4) explained to students: "*this [completing the end of course survey] is the easiest way to get an extra 5 points and give me quality feedback … I do not get your feedback until after the grades are submitted, so say anything you like.*"

4.2. Techniques to enhance instructor presence

4.2.1. Consolidate practices of social and academic presence

Instructor presence has two aspects: social presence and academic presence. Prior studies mainly examined them independently (e.g., Russo & Benson, 2005; Shea et al., 2006), yet our observation indicates that instructors often consolidated practices of social and academic presence. We documented 129 excerpts in 13 courses of such integration, such as praising students when providing feedback on student coursework. Among these excerpts, two innovative approaches stand out. First, in 6 excerpts instructors enhanced social presence in academic interactions through self-revelation by sharing their personal opinions, feelings, or experiences. For example, in an art appreciation course (Crs2), the instructor introduced course materials using a non-formal conversational tone where opinionated language was incorporated, such as "*a fun clip*" and "*this fabulous video will help you review [course topic]*." The excitement and positivity with which the instructor approached the academic material suggest how such a connection may imbue students with a similar affect. Similarly, the instructor in a psychology course (Crs1) shared his own dreams when assigning students to analyze their dreams, which allowed the instructor to become an active participant in students' learning processes and helped students to perceive the instructor as a real human. Second, in 17 excerpts, instructors demonstrated their care for students and confidence in students when offering academic support to address student emerging needs. This approach of combining social and academic practices may be particularly helpful to struggling students by offering academic resources along with social support that can relieve their anxiety. For instance, when teaching a writing course (Crs13), the instructor introduced various virtual and off-line resources to students and reassured students by indicating explicitly that "*this course can seem intimidating; however, if we all work together and push ourselves, we can effectively carve a path to success.*"

4.2.2. Establish and maintain instructor-student relationships throughout a course

Instructors not only used warm and responsive practices, but did so continuously throughout their courses to establish and maintain relationships with their students. Such efforts were observed in 149 excerpts from 16 courses. Instructors' effort to establish supportive classroom environments often took the form of initiating relationships with students at the beginning of the course by welcoming them, expressing their willingness to offer help, as well as offering concrete guidance on online communication. Instructors' efforts to nurture positive relationships with students did not stop there; rather, they continued to use social presence practices to maintain and strengthen the relationship as the course evolved. A total of 24 excerpts demonstrated that instructors continually showed their care for students by reminding students of severe weather, addressing students' financial concerns (e.g., purchasing textbooks), and so on. In another 31 excerpts, instructors frequently reiterated their willingness to help during their courses. They did so by telling students that they were available to offer guidance and encouraged students to participate in office hours and reach out when encountering problems. For example, in week one, an instructor (Crs13) welcomed students with an introductory video at the beginning of the course and encouraged students multiple times during the course to communicate with the instructor whenever needed: "*Remember!☺ Questions are always welcome! Just because it is clear to me does not mean it is clear to you. Email me ([email address]) at your convenience.*"

4.2.3. Provide multi-staged support throughout each learning unit

Based on around 70 excerpts from 13 courses, we found that instructors monitored student progress towards the learning goals of each unit, and strategically adapted support at critical time points, such as at the beginning of a unit or before a deadline. In this way, instructors were able to show their presence in every critical time point, guide students' learning step-by-step, and build a supportive learning environment.

At the beginning of a unit, instructors sent out announcements with an overview to help students plan their learning. These announcements informed students about the launch of the new unit, summarized the goals and key tasks of the unit, listed task deadlines,

and provided tips for studying the content and completing the assignments. For example, at the beginning of a learning unit, one instructor (Crs2) sent out an announcement to inform students that the topic would be challenging and provided specific study suggestions: "*This week, we are continuing our discussion of [topic]. This is a fun but rather challenging topic. So plan to take a little more time this week to study the material and consider the differences between the various approaches.*" Several instructors provided a checklist for each week and encouraged students to plan their learning ahead of time. For example, when there was a hurricane, one instructor (Crs1) reminded students to "*plan for power outages and internet connectivity problems.*" The instructor further explained that "*[making precautionary plans] is actually a good strategy for all online classes.*" These announcements offer a warm prologue at the beginning of the unit that may help students begin with a clear agenda, make plans ahead of time, and cultivate time-management skills that are critical for online learning success.

When specific deadlines approached, instructors reminded students and provided additional support to help them complete their tasks on time. In 19 excerpts, instructors sent out reminders close to the deadline. Furthermore, instructors provided additional support if they noticed a need, such as re-emphasizing the requirements or offering suggestions. For example, one instructor (Crs2) reminded students to refer to the paper requirements prior to submission and urged students to submit another attempt if they had not completed the assignment correctly. Friendly reminders and timely advice may help students who might otherwise miss a deadline or lose points on their assignments.

After the end of each unit, instructors sent out announcements or videos to compliment student achievements, provide feedback on overall performance, and offer extra support to those who were struggling, all of which helped students prepare for the next unit and engaged them more actively. For example, one instructor (Crs1) sent out a check-in video at the end of Week 4 praising and encouraging students: "*You did a great job on this week's work, with almost all students completing all three weekly items. … Keep up the good work!*" Another instructor (Crs4) sent out an announcement regarding students who missed assignments: "*Please pay close attention to due dates and explanations as I want each of you to succeed!*" The instructor then summarized the common problems students had with their assignments and ways of improving for future assignments. To help students who struggled with particular assignments, some instructors extended deadlines, allowed students to make-up the assignments, or followed up with students individually.

4.3. Techniques to enhance peer presence

4.3.1. Create inclusive and collegial class culture through online social etiquette

In 24 excerpts from 11 courses, instructors utilized peer online social etiquette to set parameters on the types of peer interactions that were appropriate for their course, focusing on creating an inclusive and collegial class culture. Specifically, in 20 excerpts, instructors highlighted the importance of respectful and congenial peer interactions, in 15 excerpts instructors required academic and professional language, and in 2 excerpts instructors explicitly stated that discriminatory language was unacceptable. For example, one art instructor (Crs12) provided netiquette that stated that "*you are expected to use respectful and professional language*" and that "*no insensitive comments pertaining to a person's race, religion, sexuality, political affiliation etc. is appropriate.*" In addition, instructors provided social etiquette guidelines through various course components including assignment instructions and rubrics, supplementary materials, and announcements, to support their implementation. By providing guidance on social etiquette in multiple course components, instructors may better magnify the importance of having an inclusive and collegial class culture. Some instructors explicitly incorporated these guidelines into assignment rubrics, which can help hold students accountable to online etiquette guidelines. For instance, one instructor (Crs12) said that discussion board posts that were inappropriate and violated the established appropriate social etiquette would not receive credit.

4.3.2. Scaffold multi-step collaborative assignments

In 6 courses instructors promoted peer presence by requiring collaborative assignments, or assignments where at least a portion of the assignment had a shared student group grade. Collaborative assignments have been shown to promote critical thinking and learning in students, but may require more guidance and facilitation in online courses to ensure students are having positive collaborative learning experiences with their peers (Palloff & Pratt, 2010; Zainnuri & Cahyaningrum, 2017). We observed 28 excerpts where instructors assigned or facilitated collaborative assignments by 1) providing "pre-assignments," 2) creating a multi-step structure, and 3) offering guidance on peer collaboration.

Firstly, in four excerpts instructors facilitated collaborative assignments by providing "pre-assignments." "Pre-assignments" refers to group-based assignments that take place prior to formally assigning the collaborative assignment and require students to choose group members, or get acquainted and build community with their group, or establish roles and expectations within their group. These pre-assignments can help to establish a team foundation and have teams build rapport prior to completing academic group assignments. Secondly, in seven excerpts instructors supported collaborative assignments by creating a multi-step structure and providing clear information and timely reminders about the multiple collaborative assignment segments to kept students on track. Collaborative assignments usually require prolonged peer collaboration and communication, extending over a few weeks, and thus need different support at different stages of the assignments. Lastly, in 16 excerpts instructors further scaffolded the collaborative assignment process by providing guidance on group communication and team collaboration. Specifically, instructors offered guidance on interpersonal interactions among group members, through peer rubric evaluations that denoted expectations on how team members should interact and collaborate, suggestions about how and where groups should communicate, and guidelines on what it means to be a good team member.

For instance, in one communications course (Crs4), the instructor segmented a large collaborative assignment into four key steps. The first step was an assignment called "*Enroll in Group*" that required students to identify group members and guided students on how

to do so. The second step was an assignment called "*Introduction Group Discussion Board*" that was meant to get students to get to know their group members, where students were asked to introduce themselves, share "*your schedule,*" and describe "*an ideal group member.*" The third step was an assignment called "*Group Tasks and Communication Plan,*" where students needed to specify how and when they would communicate with their team, identify a team leader, and indicate which team member would complete specific tasks. The fourth step was the first collaborative assignment called "*Notice of Vacancy Wiki,*" this was the first collaborative written assignment students needed to complete with a shared group grade. In addition to sending constant reminders and feedback about group assignments, the instructor also provided a video specifically about how to navigate group related problems: *"Attached you will find suggestions to consider if you are encountering problems when working with group members. Please review this and see if any tips can help you."*

4.3.3. Promote peer socio-emotional communication

Instructors promoted peer socio-emotional communication by having students share their moods and emotions with their peers and instructors in online courses. While there were only 3 excerpts within 3 courses where we observed this pattern, it is still a notable pattern because it positions students' peers as humans with feelings and can potentially enhance online communication. Instructors promoted peer socio-emotional communication in two ways: by requiring assignments where students shared their feelings on a class concept or by providing guidance on how to share their feelings in an online class setting. Two instructors promoted socio-emotional communication in assignments by asking students to share their feelings on course content in a discussion forum that their peers were required to read and respond to. Additionally, in one financial accounting course (Crs 8), the instructor encouraged students to share their feelings and emotions with the class by explicitly stating their mood or using emoticons in online dialogues. The instructor noted that online messaging was infamous for creating miscommunication "*because the context of body language, tone, and setting are lost online.*" The instructor recommended that students "*briefly describe your mood at the start of a message*" and "*use writing tricks like emoticons, acronyms, and extra punctuation, but use them judiciously*." Promoting peer socio-emotional communication can potentially enhance communication in an online course where non-verbal communication is often limited and increase students' sense of speaking to "real" peers (Liu et al., 2009; Palloff & Pratt, 2010).

5. Discussion and implications

This study aimed at providing a detailed portrayal of implementation techniques used by college instructors to humanize their online course. Unlike previous studies that mainly focused on the presence of a recommended instructional practice or the frequency of usage, we conducted an in-depth qualitative analysis of instructors' practices. The implementation techniques identified in this study, along with exemplary demonstration, provide actionable guidance that has been largely missing from the existing literature.

5.1. Summary of key findings

5.1.1. Consistent efforts throughout the course

Our results indicate that the instructors in our sample typically incorporated consistent efforts through multiple ways to bring a humanized experience to students throughout the course. For instance, to enhance students' sense of purpose in a course, instructors helped students to identify a connection between the course and their career and life at the beginning of the course, and continued to solidify the connection through tasks tailored to student needs as the course progressed. Enhancing peer presence through continued involvement and guidance in student group projects is another example, where instructors broke down large group assignments into multiple steps and offered specific support at each stage of an assignment. These efforts may manifest through a variety of forms, such as offering clearly articulated guidance on etiquette to help encourage discussions that could build a supportive and personal connection, and providing grading rubric with clear sense of expectation to help achieve an effective collaborative experience. These patterns highlight the importance of consistent and regular efforts in humanizing online learning experiences for addressing students' evolving needs throughout the course. Previous research has mainly focused on the total amount of instructors' efforts in using humanization practices while paying limited attention to the consistency, timing, and relevance of these efforts (e.g., Mandernach, et al., 2006; Schutt et al., 2009). Future research may wish to examine beyond the overall engagement of humanization practices and delve more deeply into additional measures, such as the regularity and relevance of instructor use of humanization practices, in examining the impacts of humanized instruction on student learning experiences and performance outcomes.

5.1.2. Promoting social and academic presence in an integrated way

Most of the prior studies have examined instructional practices that target social presence or academic presence separately (e.g., Russo & Benson, 2005; Shea et al., 2006). Yet, our results suggest that instructors integrated the two together to optimize student learning experiences. For example, when instructors provided feedback and academic suggestions on the coursework of struggling students, they also indicated strong confidence in student ability and care for student success to relieve students' anxiety and create a supportive environment. Although only a handful of studies have examined the consolidation of social presence and academic presence practices, results from these studies provide suggestive evidence on its potential to improve student motivation and engagement (Bangert, 2008; Richardson et al., 2015). Our study draws on this line of work and further extends it by describing specific approaches used by instructors to promote social and academic presence at the same time, along with several concrete examples.

5.1.3. Developing a sense of community through social emotional communication

Positive peer-to-peer communication and relationships are critical for the development of learning community and student

engagement and persistence (Angelino et al., 2007; Liu et al., 2009; Rovai, 2002). While prior research has mainly focused on how to develop a learning community through peer-to-peer academic communication, such as group assignments and course content related forum activities (Brindley et al., 2009; Martin & Bolliger, 2018), our findings shed light on how instructors can strengthen students' sense of community by promoting and guiding peer-to-peer social-emotional communication. The challenges associated with effective social-emotional communication in virtual learning environments have been widely documented in the literature. Researchers pointed out that individuals behave in ways that are less inhibited in a virtual environment than in-person due to the lack of social cues (Lane, 2016; Suler, 2005). For example, prior studies found that many students in online courses were reluctant to share their personal or cultural experiences due to fear of negative responses from peers, and reported feelings of isolation and disconnection (Rovai, 2002). Our study provides concrete examples that online instructors can tap into to promote appropriate peer socio-emotional communication and assuage the concerns associated with lack of visible social cues (Lane, 2016; Suler, 2005).

5.2. Research and practical implications

This study has several implications for both research and practice. Firstly, we developed a comprehensive coding scheme that synthesizes prior literature on instructional practices that have the potential to humanize online learning. Future research can draw on this coding scheme to systematically examine the relationships between various practices and students' academic and socio-emotional outcomes.

In addition, the qualitative approach used in this study allowed us to capture specific implementation techniques used by instructors in humanizing their online course, with several concrete examples to illustrate each technique. While understanding the benefits of these implementation techniques on student outcomes is beyond the goal of the current study, it lays a groundwork for future research that wishes to delve into the relationship between specific implementation techniques and students' feeling of agency, instructor presence, and peer presence, as well as performance outcomes.

Finally, PD programs across the nation have been increasingly geared toward a comprehensive preparation of online instructors, where pedagogies to humanize the online learning experience have become a critical component of these training efforts (e.g., American River College, 2021). Yet, to enable instructors to apply recommended teaching practices to their own instruction, it is important that instructors receive detailed guidance on specific ways to implement these practices. Thus, both the coding framework developed in this study and the detailed explanation of implementation techniques would provide valuable resources to both online instructors seeking ways to revamp their online courses and institutions designing PD programs to provide instructors with a systematic PD experience.

5.3. Limitation

There are several limitations to the present study. First, this study used data collected from the archived online course shell. While the archived course shell still included the majority of course design features and instructor practices, we did not observe the interaction occurred outside of the learning management system. Future studies with access to data outside of the learning management system may wish to provide more thorough understanding of instructors' practices in their online courses.

Second, to serve the goal of this study, we focused on a selected sample of courses that demonstrated high levels of humanization practices. Accordingly, neither the level of instructors' engagement in humanization practices or the implementation techniques used by these instructors is representative of typical practice in online courses at community colleges. Future research that wishes to understand typical engagement of humanization practice in college online courses will need to use a different sampling technique.

6. Conclusion

Online courses can be challenging, with students working alone and feeling isolated and disconnected from the learning community. This calls for the need for instructors to promote student agency to engage students actively throughout their learning, and improve presence and interactivity intentionally and visibly, or to "humanize" online learning. Yet, having limited experience as online learners themselves, many instructors who are new to online instruction will need detailed guidance on how to apply recommended humanization practices to their own instruction. This study addresses this need by shedding light on multiple techniques instructors can use to enhance student agency, instructor presence, and peer presence in their online courses. Taken together, these techniques highlight the importance of *making consistent and regular efforts throughout the course, promoting social and academic presence in an integrated way*, and *actively guiding student social-emotional communication* when implementing humanization practices in online courses. These findings call for future research to examine the relationships between these techniques and student outcomes and provide guidance for practitioners seeking to optimize student online learning experiences through a humanized approach.

Credit author statement

Qiujie Li: Conceptualization, Methodology, Formal analysis, Data curation, Writing – original draft; Writing- Reviewing and Editing; **Maricela Bañuelos**: Methodology, Formal analysis, Writing – original draft preparation; **Yujia Liu**: Methodology, Formal analysis, Writing – original draft preparation; **Di Xu**: Funding acquisition, Supervision, Writing- Reviewing and Editing.

Data availability

Data not available due to ethical restrictions.

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Declaration of competing interest

On behalf of all authors, the corresponding author states that all the authors they have no competing interests.

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Appendix A. Supplementary data

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