Investigating Parental Perspectives on Young Learners' Social Presence in Online Learning: A Mixed Methods Approach

Jing Song, Adrie A. Koehler, Jennifer C. Richardson
Purdue University, USA

Zui Cheng
School of Education, Shenzhen University, China

Abstract

This study used an explanatory mixed-method approach to understand Chinese parents' perceived social presence in their children's online learning and the relationship among parents' perceived social presence, perceived learning, and satisfaction with their children's online instructor. In the quantitative phase, 53 Chinese parents of young learners were surveyed to determine the relationship across perceived social presence, perceived learning, and satisfaction with their child's online instructor. Results highlighted the significant relationships between parents' perceived social presence and both their perceived learning ($r = 0.517$) and satisfaction with the instructor ($r = 0.518$) in their children's online learning, with social presence accounted for 26.7% of the variance in their perceived learning. Qualitative interviews were conducted to further explore parents' perceptions of social presence—its definition, importance, the instructor's roles, parental involvement, and factors impacting perceived social presence. Findings emphasized the importance of parental roles, the interplay of social and teaching presence, and learners' cultural background when designing effective online learning experiences with young learners.

Introduction

Online K–12 enrollment has steadily increased in the past decade (Archambault et al., 2022; Borup et al., 2019), with the COVID-19 outbreak forcing millions of young learners to learn online (Archambault et al., 2022; Dong et al., 2020). As online learning with young children has become a reality due to the pandemic (Maslin et al., 2023), exploring viable solutions to foster effective online learning experiences for young learners is crucial.

Most research in K–12 online learning has focused on secondary school children (Bond, 2021; Borup et al., 2013; Borup, 2016; Borup et al., 2019; Maslin et al., 2023), with young learners receiving little attention until the COVID-19 pandemic. Studies during the pandemic revealed many challenges resulting from young learners participating in online educational settings (Flynn et al., 2021; Fontenelle-Tereshchuk, 2021). For instance, many young learners, particularly those under the age of 11 or 12, may still be developing key skills such as self-regulation, independence, and motivation, which are considered essential for successful online learning experiences (Manoharan et al., 2022). In addition, young learners' digital literacy levels, psychomotor skills, and social-emotional development are still in a nascent stage (Dong et al., 2020; Kolak et al., 2021; Lau & Lee, 2021). As a result of these challenges, parental involvement (parents' or caregivers' investment in their children's education; Larocque et al., 2011) during online learning with young learners is critical for boosting chances of a meaningful experience (Johnson et al., 2023; Kipp et al., 2023; Song et al., 2022).

Borup et al. (2014) considers parental involvement a key part in the Adolescent Community of Engagement framework in K–12 online learning environments. Parents facilitate interaction through nurturing (offering love and support, providing materials for the virtual learning environment, preparing young learners with basic social and behavioral skills for an academic context), monitoring and motivating to mitigate young learners' lack of autonomy and self-regulation, and volunteering (e.g., parent volunteering activities). Parents also organize young learners' virtual environment and time and engage in various instructional activities to enhance their learning experiences.

As predictors of parental involvement, parents' perspectives toward online learning significantly influence young learners' learning experiences (Erdogan et al., 2019). For example, parents' facilitation of digital technologies and media environments is inseparable from young learners' online learning. Also, parental beliefs and attitudes toward the role and potential of online learning for young children shape the quality and quantity of online education, opportunities, and learning experiences children receive at home (Dong et al., 2020).

In addition to parents' perspectives and involvement, social and emotional interactions within online environments are essential to the success of online learning (Garrison et al., 2000; Garrison, 2003), with social presence considered a significant factor in creating meaningful online learning experiences (Richardson & Swan, 2003; Richardson et al., 2017). Extensive research has shown social presence is essential for student satisfaction and learning outcomes in online learning (Gunawardena & Zittle, 1997; Miao et al., 2022; Richardson & Swan, 2003) and impacts student motivation, participation, actual and perceived learning, and course and instructor satisfaction (Richardson et al., 2017).

However, research has yet to fully explore young learners' social interactions in online learning environments. Given that parents are one of the most important stakeholders in a young learner's education and in supporting membership in an online learning community (Dong et al., 2020), parental involvement is crucial in shaping young learners' home-based online learning (Liu et al., 2022). Despite this, little research has considered parents' perspectives on social presence in their children's online learning. To address this gap, this study explored parents' perceptions of social presence in their children's online learning and the relationships among parents' perceptions of social presence, perceived learning outcomes, and satisfaction with the instructor. Parents' perceived social presence or parents' perceptions of social presence refer to their views on the social presence experienced by their children in online learning, rather than their own social presence within the online learning environment.

Literature Review

Online Learning with Young Learners

Online learning is typically defined as the process of acquiring knowledge or skills via the internet, where students engage in learning activities with instructors and peers either synchronously or asynchronously, when and wherever convenient (Singh & Thurman, 2019). Young learners generally refer to children under the age of 11 or 12 years, though definitions differ across educational systems and countries (Tao & Xu, 2022). This study primarily focuses on online learning with elementary school aged children (between 7–12 years old).

Research in online learning has predominately considered higher education settings (Bond, 2020). Within K–12 online contexts, middle and high school students have received disproportionately more attention (Bond, 2020; Johnson et al., 2023) and young learners are still underrepresented (Johnson et al., 2023; Maslin et al., 2023; Yuan & Dao, 2025). Prior to the COVID-19 pandemic, research on young learners in online environments was especially limited. A systematic review of K–12 online learning literature underscored the need for further research into the developmental needs and instructional strategies tailored to younger learners (Johnson et al., 2023).

K–12 Online Learning in China

This lack of research is also evident in the Chinese context, where online learning with K–12 students only became prevalent after the pandemic (Wang et al., 2024; Zuo et al., 2021). In China, parents often seek after-school learning opportunities to supplement their children's formal schooling (Wang et al., 2024). For instance, many enroll their children in English-language classes, as well as math and Chinese tutoring programs. Following the COVID-19 outbreak, K–12 education gradually transformed to online learning (Wang et al., 2024; Zuo et al., 2021), with synchronous learning becoming particularly popular (Zhu et al., 2025).

Research on K–12 online learning in China has explored perspectives of parents (Cui et al., 2021; Dong et al., 2020; Lau & Lee, 2021; Zhang, 2021) and students (Cui et al., 2021; Ma et al., 2022; Wang et al., 2024; Zuo et al., 2021) regarding their experiences amid the pandemic. For example, Dong et al. (2020) highlighted the importance of parental roles in supporting young learners' online learnings, whereas Cui et al. (2021), Lau & Lee (2021), and Zuo et al. (2021) identified key challenges such as technical problems, excessive screen

time, and reduced social interaction students face when learning online. Additionally, some studies have investigated solutions to enhance online learning outcomes (Yuan & Dao, 2025; Zhao et al., 2024; Zuo et al., 2022; Wang et al., 2024). For instance, Yuan and Guo (2025) emphasized the importance of developing a comprehensive understanding of the factors that impact young learners' engagement in online learning.

Parental Involvement in Young Learners' Online Learning

Across both Chinese and international studies conducted during and after the pandemic, two major themes emerged—most notably, the consistent emphasis on parental involvement. Many studies highlighted parental support (Kolak et al., 2021; Liu et al., 2022; LaRocque et al., 2011), parental perspectives (Cui et al., 2021; Dong et al., 2020; Flynn et al., 2021; Lau & Lee, 2021; Pastori et al., 2021), and related challenges (Abuhammad, 2020; Fontenelle-Tereshchuk, 2023; Harjule et al., 2021; Henderson et al., 2020; Lau & Lee, 2021; Pittas et al., 2022; Pozas et al., 2021) regarding young learners' online learning experiences. Online learning can be less active compared to traditional face-to-face learning, which causes young learners' motivation and attention to decline (Pittas et al., 2022). To mitigate these challenges, meaningfully integrating parental involvement has increased significantly. For example, studies reported parents embracing multiple roles: "shadow teacher" (helping with content instruction and homework supervision); "mediator" (communicating between the child and teacher); and "tech expert" (facilitating young learners' online learning) (Dong et al., 2020; Kolak et al., 2021; Tao & Xu, 2022).

However, the significant involvement in supporting their children's online learning caused parental stress (Dong et al., 2020; Flynn et al., 2021; Fontenelle-Tereshchuk, 2021; Harjule et al., 2021; Pastori et al., 2021; Pozas et al., 2021; Ribeiro et al., 2021; Soltero-Gonzalez & Gillanders, 2021; Sonnenschein & Stites, 2021; Sonnenschein et al., 2021). Parents described main challenges with their children's online learning as additional time required to support online learning and homework, lack of training in online learning, and inadequate content knowledge of school subjects (Cui et al., 2021; Lau & Lee, 2021; Pastori et al., 2021; Ribeiro et al., 2021; Sonnenschein et al., 2021).

Further, many studies reported parents' negative beliefs toward online learning. Those negative beliefs caused by perceived disadvantages of online learning, inadequate professional knowledge of content and technology, young learners' lack of self-regulation, and inadequate support from schools and teachers (Abuhammad, 2020; Cui et al., 2021; Dong et al., 2020; Fontenelle-Tereshchuk, 2021; Günbaş & Gözüküçük, 2020; Nusser, 2021; Pastori et al., 2021; Sonnenschein et al., 2021; Yayci & Kendirci, 2021; Çakın & Akyavuz, 2021). For example, parents hoped their children would return to in-person learning to achieve superior learning outcomes and develop of social skills (Günbaş & Gözüküçük, 2020; Harjule et al., 2021; Henderson et al., 2020; Mantovani et al., 2021; Çakın & Külekçi Akyavuz, 2021).

Technology Integration for Enhancing Young Learner Engagement

The second major theme was integrating technology to improve young learners' engagement in online learning. To date, studies have implemented animated videos, artificial intelligence, virtual reality, interactive electronic modules, and web-based songs to improve young learner engagement in online environments (Ho & Nguyen, 2022; Pujiani et al., 2022; Putri et al., 2022; Trilestari & Almunawaroh, 2021; Xu et al., 2022). For example, Ho and

Nguyen (2022) highlighted the importance of implementing various digital resources to stimulate young learners' motivation and engagement. Pujiani et al. (2022), Putri et al. (2022), and Xu et al. (2022) echoed this belief by exploring the use of animated video, online songs, and artificial intelligence, respectively, in teaching English to young learners in online environment.

Two conclusions can be drawn from the above research. One is that parents are an integral part of young learners' learning, and their roles are even more critical in online learning contexts (Liu et al., 2022). Therefore, involving families in education to improve student learning outcomes is important. Furthermore, examining parental perspectives when considering young learners' online experiences is worthwhile. Second, challenges exist with young learners' online learning experiences, and many parents are not pleased with the quality of their children's emergent online learning experiences. Though studies have explored ways to improve learner engagement, parents' unique role remains unexplored. As online learning with young learners has become a norm, including parents when exploring effective and meaningful online learning solutions is key.

Social Presence Theory

Definitions

Social presence was first introduced as a key factor in communication media by Short et al. (1976). It refers to "the degree to which a person is perceived as a 'real person' in a mediated communication" (Gunawardena & Zittle, 1997, p. 9). Short et al. (1976) asserted that social presence is closely related with "intimacy" (e.g., physical distance, eye contact, smiling, personal topics of conversation) and "immediacy" (perceived psychological distance among online participants). Gunawardena (1995) further explained that social presence contributes to the level of intimacy, and immediacy behaviors enhance social presence. Building upon previous research, Garrison and colleagues included social presence as one of the three constructs (i.e., social presence, cognitive presence and teaching presence) in their widely cited Community of Inquiry Framework (CoI). They defined social presence "as the ability of participants in a community of inquiry to project themselves socially and emotionally, as real people (i.e., their full personality) through the communication being used" (Garrison et al., 2000, p. 13). For the purpose of this study, we are defining social presence as the "degree to which a person is perceived as 'real' in mediated communication" (Richardson and Swan, 2003, p. 70).

Dimensions of Social Presence

To further explain how social presence is manifested in virtual learning environments, previous studies have identified key dimensions to capture its behavioral and emotional components (Garrison et al., 2000; Rourke et al., 2001; Swan, 2003): emotional expression (e.g., emotions, humor, self-disclosure), open communication (e.g., mutual awareness, recognition), and group cohesion (e.g., group commitment). Rourke et al. (2001) used an iterative process to derive social presence indicators and culminated three broad categories: affective responses (i.e., personal expressions of emotion, feelings, beliefs, and values), interactive responses (i.e., behaviors providing evidence that others are attending), and cohesive responses (i.e., behaviors fostering a sense of group commitment), which directly corresponded to Garrison et al.'s work. It is important to note that two of the social presence categories were later renamed: cohesive was renamed as group cohesion and interactive was

renamed as open communication (Swan & Richardson, 2017). The three key dimensions were embedded in the instrument developed by Richardson and Swan (2003), which was adopted for this study.

<u>Research on the Impact of Social Presence</u>

Social presence has been extensively studied in higher education over the past 30 years. In a meta-analysis investigating the relationship between social presence and students' satisfaction and learning, Richardson et al. (2017) presented a detailed discussion of existing studies on social presence, highlighting social presence's significant influence on "students' participation and motivation to participate, course and instructor satisfaction, and both actual and perceived learning" (p. 403) and offering implications on course design, student retention, and intentions to enroll in future online courses.

Furthermore, seminal research has established social presence as an essential aspect of online learning. Gunawardena and Zittle (1997) examined the effectiveness of social presence in online learning, finding that it alone explained 60% of the variance when predicting student satisfaction. This finding was confirmed by Richardson and Swan (2003), Swan and Shih (2005), and Russo and Benson (2005). Additionally, Richardson and Swan (2003) and Russo and Benson (2005) identified that student social presence significantly predicts students' overall perceived learning, whereas Swan and Shih (2005) indicated that instructor social presence may be a stronger factor that impacts student satisfaction than student social presence. Using a mixed-method approach, Tu and McIsaac (2002) identified social presence's positive influence on online interaction, which was later echoed by Wise et al. (2004). Notably, Tung and Deng (2006) expanded social presence research to elementary-aged children, finding that greater interactivity enhanced the social presence and appeal of digital environments, thereby fostering children's engagement, intrinsic motivation, and richer learning experiences.

Since the onset of COVID-19, research on social presence has reaffirmed previous findings and advanced the field. Studies have consistently identified a positive association between social presence and student learning across higher education and K–12 contexts (Lee et al., 2025; Stankovska et al., 2021). Scholars have introduced new dimensions to social presence theory, such as social presence divergence and interaction integration (Weidlich et al., 2023), while also extending social presence into K–12 online learning environments (Lee et al., 2025; Tackie, 2022). For instance, Lee et al. (2025) investigated 364 fourth to sixth-grade elementary students to understand the relationship between student's social presence and their perceived learning outcomes.

With the rise of online learning environments over the past two decades, research on social presence continues to increase across contexts and disciplines (Richardson et al., 2017). However, the majority of existing studies on social presence have considered higher education contexts. Research exploring social presence in online learning among young learners remains scarce, with limited attention given to the role of parents in these environments.

Online learning contexts are increasingly used with young learners, with parents playing a critical role in facilitating these experiences. At the same time, research underscores the critical role social presence plays in online learning. Therefore, understanding parental perspectives regarding social presence can help inform best practices for online learning for young learners. To this end, this study aimed to understand Chinese parents' perceptions of

social presence in their children's online learning and the relationship among parents' perceived social presence, perceived learning, and satisfaction with the instructor. Our guiding questions included:

- How does parents' perceived social presence explain their satisfaction with the instructor and perceived learning in their children's online learning?
  - What are parents' perceptions of social presence in their children's online learning experience?
  - Is there a relationship among parents' satisfaction with the instructor, their perceived social presence and perceived learning in their child's online learning?

Methods

Research Design

A two-phase explanatory mixed method approach was used to explore parents' perceptions of social presence in their children's online learning and the relationships among parents' perceived social presence, perceived learning, and satisfaction with the instructor (Creswell & Clark, 2017). First, quantitative survey data was collected capturing parents' social presence perceptions, and then, qualitative data was collected from interviews with parents to explain and extend the quantitative results (see Figure 1).
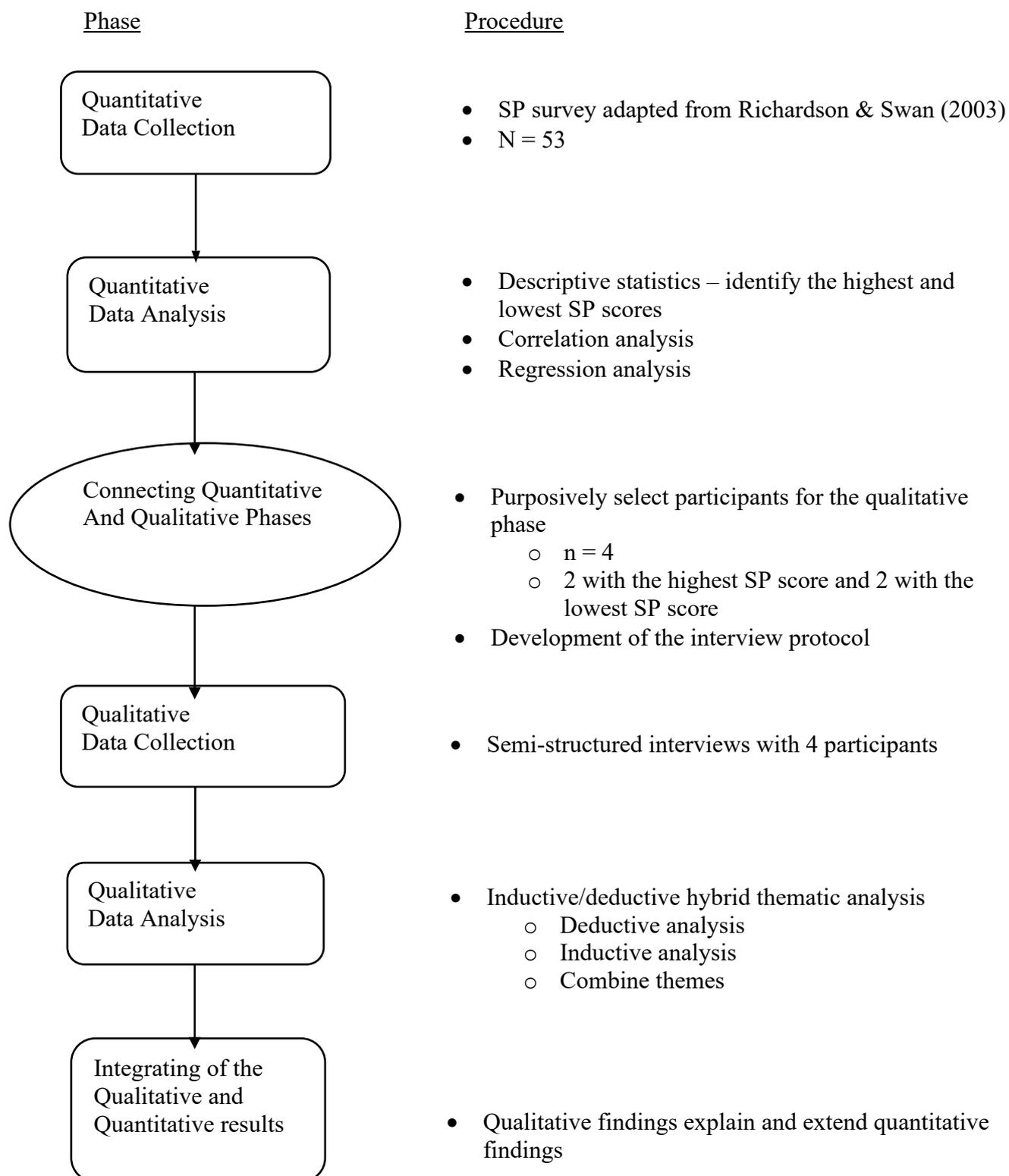
Research Context and Participants

Participants were recruited through the first author's professional network. The first author, an online English instructor, initially distributed the survey link to the parents of her students and requested a colleague, also an online teacher, to disseminate the survey to their respective parent networks. Parents who were invited to participate in the survey had direct and active involvement in supporting their children's online learning at home—including managing schedules, assisting with technology, and providing academic support. Chinese parents often played an important role in supporting their children's learning by helping them submit homework to instructors. There were designated opportunities for direct interaction between parents and instructors throughout an online learning experience, including regular feedback on students' class performance, assignments, and exam results. Parents' responsibilities and interactions with instructors provided them with meaningful engagement in the online learning process, even in the absence of structured training.

Participants were recruited through WeChat, a widely used social media platform in China, by distributing a Qualtrics Survey link during April and May 2023. Participation was voluntary and uncompensated. A total of 66 responses were received, of which 53 were valid and analyzed. All participants were parents of elementary school-aged children (approximately 7–12 years old) with online learning experiences and were asked to reflect on their children's overall online learning—including synchronous and asynchronous formats—during or after the COVID-19 pandemic. See Table 1 for participant demographic information.

Figure 1

A Visual Model for the Sequential Explanatory Mixed Methods Design Procedures

Phase	Procedure
Quantitative Data Collection	• SP survey adapted from Richardson & Swan (2003) • N = 53
Quantitative Data Analysis	• Descriptive statistics – identify the highest and lowest SP scores • Correlation analysis • Regression analysis

Connecting Quantitative And Qualitative Phases	• Purposively select participants for the qualitative phase
	  o n = 4
	  o 2 with the highest SP score and 2 with the lowest SP score
	• Development of the interview protocol

Qualitative Data Collection	• Semi-structured interviews with 4 participants

Qualitative Data Analysis	• Inductive/deductive hybrid thematic analysis
	  o Deductive analysis
	  o Inductive analysis
	  o Combine themes

Integrating of the Qualitative and Quantitative results	• Qualitative findings explain and extend quantitative findings

Table 1

*Survey Participant Demographic Information (*N = *53)*

Variables	Frequency	Percentage
Gender		
Female	50	94.3%
Male	3	5.7%
Age group		
25–34	8	15.1%
35–44	42	79.2%
46–54	3	5.7%
Education background		
Community college	10	18.9%
Bachelor's degree	32	60.4%
Master's degree	10	18.9%
Doctoral degree	1	1.9%
Child Grade level		
Grade 1	7	13.2%
Grade 2	18	34%
Grade 3	10	18.9%
Grade 4	8	15.1%
Grade 5	6	11.3%
Grade 6	4	7.5%
Child online learning experience before COVID-19 Pandemic		
Yes	38	73.1%
No	14	26.9%
Average child online learning hours in the past three years		
0–3 hours per week	16	30.8%
4–10 hours per week	19	36.5%

| 11–20 hours per week | 4 | 7.7% |
| More than 20 hours per week | 13 | 25% |

Note: Due to school closure and the zero-COVID policy, schools across all levels in China experienced intermittent periods of online learning from spring 2021 to December 2022.

Materials

Instrument

The online survey consisted of demographic questions and a social presence scale to understand parent's perceived social presence, perceived learning, and their satisfaction with the instructor in their child's online learning (see Appendix A). Perceived learning was operationalized as the parents' subjective assessment of how much their child learned from prior online learning experiences, while satisfaction with the instructor referred to a parent's overall contentment with overall online course delivery, instructional quality, and outcomes.

The social presence scale was adapted from Richardson and Swan's (2003) work and included 15 items using a 7-point Likert scale ("Strongly disagree" to "Strongly agree"). For example, one item stated, "Getting to know other course participants gave my child a sense of belonging in the course." When revising the survey, we were mindful of the potential mismatch between academic terminology (e.g., "courses" and "course participants") and the lived experiences of young learners. We adapted the language to better reflect the context of primary education in China. For example, terms like "courses" were replaced with more familiar phrases such as "online classes," and "course participants" was reframed as "teachers," "classmates," or "other children in the class."

This instrument included three underlying factors: overall social presence (SP)—survey items 1-13; overall perceived learning (PL)—survey item 14; and overall satisfaction with instructors (SI)—survey item 15 (Richardson & Swan, 2003). The online survey was translated by the first author whose native language is Chinese and fluent in English and verified by an English/Chinese expert prior to distributing to participants.

Interviews

Interview questions were created to understand parents' perceptions of social presence and its importance in their children's online learning to further interpret and extend survey findings (see Appendix B for the interview protocol). Interview questions were created in English. The first author then translated them into Chinese. To ensure the accuracy of the translation, a Chinese language expert was consulted. The interviews were piloted on survey respondents that were not selected for the interview. Based on the survey results, purposeful sampling was used to select two parents with the highest-achieved social presence scores and two with the lowest. The sample size was appropriate because the qualitative interviews aimed to explain and expand the quantitative results instead of producing statistically generalizable findings. See Table 2 for interview participant demographic information.

Table 2

*Interview Participant Demographic information (*n = 4)*

Variables	Parent 1	Parent 2	Parent 3	Parent 4
Gender	Female	Female	Female	Male
Age	35–44	35–44	35–44	35–44
Education	BA	BA	MS	MS
SP score	84	89	34	33
Child grade level	6	4	3	4
Child OL experience before Covid-19 Pandemic	Yes	Yes	Yes	Yes
Child OL hours in the past three years	11–20 h	4–10 h	over 20 h	1–3 h

Note. SP = social presence, OL = online learning, BA = Bachelor of Arts, MS = Master of Science.

Data Collection and Analysis

This study consisted of two phases of inquiries in a sequential timing wherein the quantitative phase occurred before qualitative inquiry. Institutional Review Board approval was received prior to data collection.

Quantitative Phase

A Cronbach's Alpha test was administered to measure the internal consistency among the social presence items (1–13) in the survey. The results (Cronbach's Alpha = 0.924) indicated that the social presence scale was reliable. The researchers then conducted a Shapiro-Wilk test to determine whether the assumptions for correlation and regression analysis were met. The results on the dependent variable, parents' overall perception of social presence in their children's online learning, indicated that the assumption of normality was satisfied ($p = 0.663$). Later, a series of descriptive analyses were conducted along with the correlation and regression analysis to answer the main research question: How does parents' perceived social presence explain their satisfaction with the instructor and perceived learning in their children's online learning?

Qualitative Phase

Four semi-structured interviews were conducted and recorded by the first author via Zoom video communications, then transcribed for analysis. The interview transcripts were coded using inductive/deductive hybrid thematic analysis (Proudfoot, 2023) by two members of this research team whose native language was Chinese. Following this method, the researchers started with a deductive approach (provided a structured theoretical framework for setting up the initial set of first-level codes). Then, the researchers used inductive thematic analysis to generate sub-level codes from the interview transcripts. A combination of

deductive and inductive coding helped the researchers consider parents' opinions in a more holistic manner (acknowledging researcher reflexivity).

During the deductive coding stage, the researchers used Swan (2003) and Rourke et al. (2001) as the theoretical underpinnings to generate first-level codes. These codes were organized according to the three dimensions of social presence: affective indicators, cohesive indicators, and interactive indicators. Sample first-level codes included "emotion," "self-disclosure," "social sharing," "self-reflection," "approval," and "invitation." In the inductive coding process, researchers generated sub-level codes such as "perceived definition of social presence," "importance of social presence," and "factors that impact perceived social presence."

The two Chinese researchers initially conducted separate deductive and inductive analyses. They then merged the resulting themes from both approaches to offer a comprehensive insight into parents' perceptions of their children's online learning experience. Following this integration, the researchers engaged in debriefing sessions and discussions to ensure complete consensus on each theme, achieving 100% agreement. Additionally, to reflect parents' viewpoints in a comprehensive and accurate way, the researchers analyzed the initial Chinese transcripts to generate codes and themes. The combined themes were then translated from Chinese into English.

Proudfoot (2023) argued that this inductive and deductive hybrid coding approach is particularly apt for mixed methods studies due to its emphasis on synthesis. It "necessitates both a more open and inductive approach to theme generation and also benefits from the theoretical rigor offered by the deductive application of themes derived from an existing framework" (Proudfoot, 2023, p. 309).

Results

In this study, we explored parents' perceptions of social presence in their children's online learning and the relationships among parents' perceived social presence, perceived learning, and satisfaction with the instructor.

Quantitative Findings

Results of Correlation Analysis

Correlations were calculated across three variables (see Table 3): parents' overall perception of social presence in their child's online learning (Overall SP), parents' overall perceived learning in their child's online learning (Overall PL), and parents' overall satisfaction with their child's online instructor (Overall Satisfaction). Parents' overall perception of social presence in their child's online learning showed a statistically significant relationship with parents' overall perceived learning in their child's online learning, $r(51) = 0.517$, $p < 0.01$, and parents' overall satisfaction with their child's instructor $r(51) = 0.518$, $p < 0.01$. Additionally, the strongest correlation was between parents' overall perceived learning and parents' overall satisfaction with the instructor of their child's online learning, $r(53) = 0.630$, $p < 0.01$. The findings reveal three insights:

> 1. Parents reporting higher perceived social presence scores also perceived that their children learned more from the online courses than those reporting lower perceived social presence scores.

2. Parents with high overall social presence scores also indicated they were highly satisfied with their children's online instructors; implying that parents' perceptions of social presence are related to the perceptions of their children's instructors as having a satisfactory online presence in terms of interaction and/or quality of that interaction.

3. Parents who were most satisfied with their children's online instructors also believed their children learned more from online courses than those who were less satisfied.

Table 3

Correlations Between Overall SP, Overall PL, and Overall Satisfaction

		Overall SP	Overall PL	Overall Satisfaction
Overall SP	Pearson Correlation	1	.517**	.518**
	Sig. (2-tailed)		<.001	<.001
	N	51	51	51
Overall PL	Pearson Correlation	.517**	1	.630**
	Sig. (2-tailed)	<.001		<.001
	N	51	53	53
	Sig. (2-tailed)	<.001	<.001	
	N	51	53	53

Note. SP = Parents' perceived social presence, PL = Parents' perceived learning, Overall satisfaction = Parents' satisfaction for instructor **. Correlation is significant at the 0.01 level (2-tailed).

Correlations were also calculated for the control variables in the survey such as parents' age, education background, perceived learning, and satisfaction with the instructor. Child's grade level showed a statistically significant relationship with parents' perceived learning, r (53) = 0.355, $p < 0.01$ and parents' overall satisfaction with the instructor, r (53) = 0.398, $p < 0.01$. In short, parents of upper-elementary children reported more positive learning outcomes from their child's online learning and greater satisfaction with the online instructor.

Parents' perceived learning also showed a statistically significant relationship with their child's online learning hours, r (53) = - 0.312, $p < 0.05$. Parents perceived lower learning outcomes when their child spent more hours in online learning (see Table 4 for correlation information). Correlations were also calculated between parents' satisfaction with instructors and three variables: parents' age, educational background, and the number of hours their children spent in online learning. No significant relationships were found, suggesting that parents' satisfaction in their children's online learning was not influenced by parent age, education background, or the amount of time their children spent in online learning.

Table 4

Correlation between Overall PL, Overall Satisfaction, and the Control Variables

		Age	Education	Grade level	OL hours	Overall PL	Overall Satisfaction
Age	Pearson Correlation	1	.138	.231	.008	-.001	.170
	Sig. (2-tailed)		.325	.096	.953	.997	.223
	N	53	53	53	53	53	53
Education	Pearson Correlation	.138	1	-.153	.135	-.159	-.208
	Sig. (2-tailed)	.325		.273	.336	.256	.135
	N	53	53	53	53	53	53
Grade level	Pearson Correlation	.231	-.153	1	-.056	.355**	.398**
	Sig. (2-tailed)	.096	.273		.690	.009	.003
	N	53	53	53	53	53	53
OL Hours	Pearson Correlation	.008	.135	-.056	1	-.312*	-.250
	Sig. (2-tailed)	.953	.336	.690		.023	.071
	N	53	53	53	53	53	53
Overall PL	Pearson Correlation	-.001	-.159	.355**	-.312*	1	.630**
	Sig. (2-tailed)	.997	.256	.009	.023		<.001
	N	53	53	53	53	53	53
Overall Satisfaction	Pearson Correlation	.170	-.208	.398**	-.250	.630**	1
	Sig. (2-tailed)	.223	.135	.003	.071	<.001	
	N	53	53	53	53	53	53

Note. OL Hours = Online learning hours, PL = Parents' perceived learning, SI = Parents' satisfaction for instructor. ** Correlation is significant at the 0.01 level (2-tailed).

Results of Regression Analysis

To further understand the nature of the relationship between parents' perceived social presence and their perceived learning in their children's online learning, a standard direct entry regression was administered. Parents' perceptions of social presence, a continuous fixed variable served as the predictor; parents' overall perceived learning served as the dependent variable. In this model, parents' perceptions of social presence explained 26.7% of the variance in parents' perceived learning in their child's online courses ($F(1, 49) = 17.862$, $p < 0.01$, $R^2 = 0.267$). Parents' perceived social presence was a significant predictor of parents' perceived learning of their child's online courses, meaning that parents' perceived social presence is important in explaining variations in their overall perceived learning in their child's online learning. The results of this standard entry regression are shown in Tables 5 through 8.

Table 5

Variables Entered/Removed^a

Model	Variables Entered	Variables Removed	Method
1	Perceived social presence		Enter

a. Dependent Variable: Perceived learning

Table 6

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.517^a	.267	.252	1.173

a. Predictors: (Constant), Perceived social presence

Table 7

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	24.557	1	24.557	17.862	<.001^b
	Residual	67.365	49	1.375		
	Total	91.922	50			

a. Dependent Variable: Parents' perceived learning

b. Predictors: (Constant), Parents' perceived social presence

Table 8

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.386	.725		1.911	.062
	Perceived social presence	.646	.153	.517	4.226	<.001

a. Dependent Variable: Parents' perceived learning.

Qualitative Findings

The qualitative data collected from the semi-structured interviews reinforced the findings of the quantitative data. No notable differences were observed in parents'

descriptions of social presence or their experiences, as two parents reported high levels of social presence while the other two reported low levels. Qualitative findings are detailed in six dimensions.

Parents' Perceived Definitions of Social Presence

Social presence was initially defined as the degree to which an online participant is perceived as a real person in the online learning community (Short et al., 1976). Under this definition, social presence can be interpreted as the interactions among online participants (e.g., teacher-student interaction and student-student interaction). However, in this study, parents' perceived social presence differently. Although parents considered social interaction among students and classroom climate in their perceived definitions of social presence, their focus was predominately on teacher-student interaction. Notably, parents' perceived definitions of social presence were limited to online synchronous learning, with little reference to asynchronous formats, indicating that synchronous learning may be more engaging or memorable for parents, even if their child also engaged in asynchronous learning. Table 9 presents synthesized definitions of social presence by parents. These are paraphrased summaries that capture the essence of each parent's response. Each parent's social presence group (high or low) is also indicated in the table.

Parents' Perceived Social Presence in Their Child's Online Learning

Aligned with parents' perceived definition of social presence, the most reported social presence themes (Swan & Richardson, 2003) were approval (expressing approval, offering praise, and encouragement) and invitation (asking questions or otherwise inviting responses). Parent 1 shared, "In my daughter's online Math and English classes, teachers often ask questions or invite students to check each other's responses. Also, my daughter enjoys her online classes because she receives constant positive feedback from teachers and peers." Parents indicated that their children desired positive/affirmative feedback from instructors or peers (mostly instructors). Parent 3 stated, "My daughter usually expects positive feedback from teachers or peers when she thinks she is doing a good job in the class." They further explained that when approval was given, the child would feel a sense of achievement and confidence, which would therefore prompt them to behave more actively in class and be more willing to complete course-related tasks after class. Parent 2 shared, "My child is more motivated to participate in the class and complete homework when she receives teachers' affirmative feedback and peers' recognition. Because she feels a sense of accomplishment and confidence in that learning environment." Also, all four parents observed frequent instructor-initiated invitations in the form of asking questions or inviting responses. Parent 1 shared, "I noticed that the online instructor constantly asks questions in my daughter's online English and Math class. It is the main format of student-teacher interaction. Sometimes, the instructor invites students to check each other's responses."

Table 9

Parents' Perceived Definition of Social Presence

Parents	Perceived Definitions of Social Presence
Parent 1 (H)	Social presence is the high interactivity between students and teachers. It is manifested as teachers' asking questions and providing immediate feedback and students' concentration on the online class (e.g., answering questions in a timely and accurate manner, staying focused throughout the lesson).
Parent 2 (H)	Social presence refers to the interaction between students and teachers. For example, students freely share their recent updates in a warm-up activity. A student's social presence level depends on his/her classroom participation.
Parent 3 (L)	Social presence refers to the interactions among students and teachers. It focuses on teacher-student interaction. Student-student interaction is secondary.
Parent 4 (L)	Social presence is teacher-student interaction and student-student interaction in an online class.

Note. H = high social presence score; L = Low social presence score.

Social sharing (sharing information unrelated to the course; casual talk as a group; engaging in non-intellectual group activities) and self-disclosure (sharing personal information, expressing vulnerability) were also highlighted by the parents. Parent 1 explained that her daughter enjoyed chatting with her peers during class breaks. She shared, "My daughter likes to talk to other students during class breaks. They share recent life updates and introduce their hometowns to each other. Sometimes, they send each other texts after class." However, parent 2 mentioned the difficulty of practicing social sharing in online class compared to in-person lessons. She said, "Due to the nature of online learning, my daughter does not communicate with other students in the same ways such as playing games or sharing snacks, as traditional classrooms." This parent also indicated that her daughter was afraid to speak in an online math class due to the fear of making mistakes. Parent 3 mentioned her child would comment on other online students' hobbies or personal traits after class.

A fourth common social presence theme was self-reflection (reflection on the course itself, a kind of self-awareness of the group). Three parents reported children experiencing stress from the online course and assignments being challenging to complete. For example, Parent 4 shared, "My son thinks his online language class is challenging. He feels frustrated sometimes." Parent 1 echoed, "My daughter thinks her online course is stressful. She must spend a lot of time trying to keep up." Parent 2 reported her 10-year-old daughter would evaluate her learning based on other classmates' coursework or class participation and adjust accordingly.

While Swan (2003) described other social presence strategies, such as humor (use of humor, teasing cajoling, etc.), vocatives (addressing classmates by name), agreement and disagreement (expressing agreement or disagreement with others' messages), participants did

not mention observing these. All parents interviewed in this study indicated that they normally did not directly participate in their child's online class. Their observation usually occurred when they were in the same or nearby room where the child was having an online class.

Factors Impacting Parents Perceived Social Presence

Parents' perceived social presence was influenced by factors including class size, the child's age, computer literacy, and personality, as well as teacher's background, instructional strategies, and the extent of students' social connections prior to an online course.

Class size was highlighted by all four parents. Parents perceived less social presence in large classes compared to small classes (4–8 students). Teacher-centered instruction was commonly observed when the class size was too large to initiate social interactions. Online synchronous classes became chaotic when multiple students spoke simultaneously, and the situation deteriorated when some students participated from a noisy environment. Parent 2 shared that her child felt intense peer pressure when class size was big.

Child's age, personality, and computer literacy also influenced parents' perceived social presence. Parent 2 stated that she would have perceived more social presence if her child was older. She believed younger learners' social-emotional skills and cognitive level hinder their participation in an online course when compared to older kids. This finding helped explain the significant correlation between a child's grade level and parents' perceived learning, as reported in the quantitative findings section above.

Three parents considered young learners' personalities a factor that impacted their perceived social presence. Parent 3 stated that the online learning environment magnified young learners' personal traits in a way that facilitated outgoing students' participation but hindered introverted learners' social presence. Parent 4 echoed with a specific example: "My son is an introverted child. Compared to outgoing kids who have great social skills, it is challenging for him to participate in an online course."

Additionally, parent 4 believed participating in an online class was easier for students when the child had higher technical skills. The parent explained that his son was often very slow when typing responses in an online class chatroom such as DingTalk, and then, the child gradually gave up on participating in the course because he failed to see the meaning of participation.

Further, teachers' background and instructional strategies also influenced parents' perceived social presence. Parent 4 shared an example of an online English instructor who, despite being a native English speaker, had spent time living in China. This cultural background enabled the instructor to better understand Chinese students, ultimately contributing to a positive online learning experience for this parent's child. Parent 2 reported an instructional approach that was hyper-competitive, which caused fear in her child when answering questions: "There are a lot of students in my daughter's online math class. The teacher encourages students to compete with each other. My daughter is usually worried about giving wrong answers because she wants to avoid negative feedback from the teacher and other students."

Parents' Perceived Importance and Expectations of Social Presence

Parents agreed that social presence is critical to learning outcomes. For example, parent 1 stated, "Interaction greatly fosters students' learning because it reinforces students' understanding and application of content knowledge." Parent 4 explained, "High-level classroom interactivity and timely feedback from teachers improves online learning outcomes."

Parents also emphasized the importance of frequent communication, personalized feedback, and collaborative activities facilitated by teachers to enhance social presence in their children's online learning environment. They viewed these interactions as crucial for fostering a sense of belonging, engagement, and connection among students and between students and their instructors.

Given the importance of social presence, parents reported high expectations of social presence in their children's online learning. Parent 1 expected social presence to facilitate her child's social skills development. She said, "I hope my kid develops social skills through the social interactions with peers and teachers in class." Parent 2 expected more social presence in a language class over a math lesson: "Classroom interaction should take up 80% of the class time, and the other 20% should be allocated to the instruction of content knowledge. It is particularly important in language courses because it could reduce students' anxiety in speaking a foreign language and improve their confidence." Parent 3 explicitly stated that she has higher expectations for teacher-student interaction (instructor social presence) compared to student-student interaction because the nature of online learning makes peer interaction more difficult. Parent 4 expressed higher expectations for small-sized online classes compared to larger ones.

Perceived Roles of Instructor in Supporting Social Presence

All four parents underlined the importance of the instructor's role in fostering social presence. Specifically, they expected online instructors to create an inclusive learning environment in which young learners could participate freely. Parents also emphasized the significance of instructors' timely/immediate feedback such as approval, encouragement, and suggestions.

Parental Involvement

When asked about parental involvement in their children's online learning, all four participants indicated that their role was mainly supervision, which included passing along information regarding course announcements, assignment requirements, important deadlines, and teachers' feedback. Additionally, parent 4 indicated that he occasionally helped with some challenging assignments: "I participated in my son's online class in the beginning. I became short-tempered sometimes, so I stopped. But I still help with homework when needed." Parent 2 believed her child depended on her more than she desired: "My daughter has a high reliance on me regarding her studies. Most of the time, I need to oversee her learning process including prior-lesson preparation, homework completion, pass-along teachers' feedback, and provide guidance on things that need to be improved."

Discussion

This study showcased a two-phase explanatory sequential mixed methods study to understand parents' perceptions of social presence in their children's online learning and the relationships among parents' perceived social presence of their child's online learning, perceived learning, and satisfaction with the instructor. The quantitative phase examined the relationship across parents' perceived social presence of their child's online learning, perceived learning, and satisfaction with the instructor. To further explain and enrich these quantitative findings, the qualitative interviews focused on parents' perceptions of social presence and its importance in their child's online learning.

Results demonstrated that parents' perceived social presence was significantly correlated with the perceived learning and satisfaction with their child's online instructor. Specifically, parents' perceived social presence explained 26.7% of perceived learning in their child's online learning. These results provided further empirical evidence of the effects of social presence on learning outcomes and satisfaction of a course (Gunawardena & Zittle, 1997; Lee et al., 2025; Miao et al., 2022; Richardson & Swan, 2003; Richardson et al., 2017).

Importantly, this study reaffirmed the positive impact of social presence on young learners (Lee et al., 2025) as reflected in parents' perceived learning outcomes and satisfaction with a course instructor. These findings also align with Borup et al.'s (2014) work, emphasizing the importance of social presence in community learning.

Furthermore, the results highlight how social presence is closely intertwined with teaching presence, as suggested by Richardson and Swan (2003) and Shea et al. (2010). Instructors play a pivotal role in shaping the online learning experience, particularly by facilitating social presence through intentional pedagogical strategies and interactions (Richardson et al., 2015, 2016), which may be particularly impactful in the context of young learners.

No significant correlation was found between parents' perceived social presence and their age, education background, and child online learning hours. This result echoed findings from Richardson & Swan's (2003) research that found that students' overall perception of social presence was insignificantly correlated with students' age, and/or college credits earned. However, grade level was significantly correlated with parents' perceived learning and parents' satisfaction with the instructor in this study. Specifically, parents of older kids reported higher perceived learning outcomes and greater satisfaction with their children's online learning experience. Qualitative findings further explained this relationship, suggesting that parents believe a child's age influences parents' perceived social presence in online learning. This finding may point to a possibility that with a larger sample size, the correlation between a child's grade level and parents' perceived social presence might reach statistical significance. Also, as indicated in the qualitative findings, young learners' cognitive development, digital literacy, and social skills might play a critical role in shaping their social presence in an online learning environment.

Interestingly, how Chinese parents' defined social presence was slightly different from the definition provided by previous studies (Garrison et al., 2001; Richardson et al., 2015). Chinese parents' definition of social presence emphasized student-teacher interaction and teachers' immediacy behaviors, while placing less value on student-student interaction. Although Chinese parents placed importance on social presence, they expected instructors to play a leading role in facilitating social presence in an online community. For example, they

expected instructors to create an inclusive learning environment and provide timely feedback for young learners. This finding aligns with Chakraborty and Nafukho (2015), who highlighted that teaching presence and teaching immediacy are closely intertwined in online learning environments, suggesting that integrating elements of both social and teaching presence is essential. The emphasis on the instructor's role could be further explained by the traditional but the widely criticized teacher-centered, dominant instructional approach in the Chinese education system (Cheng & Ding, 2021). Chinese students are more adapted to traditionally valued teacher-centered approaches regardless of the enthusiastic advocacy of the learner-centered paradigm change (Cheng & Ding, 2021).

Additionally, this finding aligns with prior research indicating that cultural perspectives influence perceptions of social presence (Gunawardena et al., 2001; Tu, 2001; Yen & Tu, 2011). Learners from different cultural backgrounds perceive social presence differently. For example, U.S. learners value it more than Mexican learners (Gunawardena et al., 2001), while Chinese university students considered asynchronous online communication more comfortable due to reduced confrontation and face-saving concerns (Tu, 2001). These insights underscore the importance of considering cultural perspectives when designing inclusive and effective online learning environments (Gunawardena, 2017).

Theoretical Significance and Implications

As a widely used theoretical concept, social presence theory has significantly impacted online teaching and learning for decades, especially in higher education contexts (Richardson et al., 2017). This study extends its application by exploring parental perspectives on social presence in young learners' online experiences—a context that has received limited attention. With online learning becoming a popular option for young learners, this study offers empirical evidence to guide educators and instructional designers in the design and development of inclusive and engaging online environments.

Importantly, findings from this study highlight the crucial role parents play in facilitating online learning. Parents not only support technical, emotional, organizational and academic aspects of their children's online learning but also shape how social presence is perceived and enacted. These insights suggest the importance of intentionally include parents into the online learning process—through clear communication, collaborative planning, and personalized supporting strategies. Moreover, incorporating parental perspectives on social presence provides valuable insights when considering the effectiveness of online learning. Therefore, establishing specific procedures and protocols to systematically include these perspectives can enhance our understanding of how online learning impacts young learners.

Limitations and Future Research

Although parents' perspective could significantly impact young learners' perception of social presence, young learners could hold different views from their parents. The sample size may prevent findings from being less generalizable. In addition, the instrument used in this study was adopted from a study investigating social presence of adult learners in higher education context (Richardson & Swan, 2003). Though the validity of the instrument was confirmed, cultural and contextual differences might bring in potential risk. In future studies, research should further validate the instrument and adopt a large sample size. Additionally, research should also explicitly differentiate between synchronous and asynchronous modalities to accurately isolate perceptions of social presence across different modalities. Exploring instructors' perspectives on social presence would also enrich understanding of

young learners' online learning experiences, offering a more comprehensive and multi-dimensional view.

Declarations

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Appendix A

Survey Instrument

Section A. Demographic Information
- Please indicate your city of residence: _____
- Gender
    - o Female
    - o Male
- Please indicate your age group:
    - o 25–34 years old
    - o 35–44 years old
    - o 45–54 years old
- Please indicate your education background:
    - o Community college
    - o Bachelor's degree
    - o Master's degree
    - o Doctoral degree
- What grade is your child in elementary school this year?
    - o Grade 1
    - o Grade 2
    - o Grade 3
    - o Grade 4
    - o Grade 5
    - o Grade 6
- Did your child have online learning experience prior to the COVID-19 pandemic?
    - o Yes
    - o No
- In the past three years, approximately how many hours of online instruction have your child received per week ?
    - o 0–3 hours per week
    - o 4–10 hours per week
    - o 11–20 hours per week
    - o More than 20 hours per week

Section B. Social Presence Scale

Your response to the following questions should reflect your child's overall online experience. For the following statements please indicate the number which best reflects your opinion in the answer column to the right of the question (SD = strongly disagree, SA = strongly agree).

Social presence scale	SD						SA
Getting to know other course participants gave my child a sense of belonging in the course.	1	2	3	4	5	6	7
The instructor created a feeling of an online community.	1	2	3	4	5	6	7
My child was able to form distinct impressions of some course participants.	1	2	3	4	5	6	7

My child enjoys social interaction in the form of online or web-based communication.	1 2 3 4 5 6 7
My child feels comfortable introducing himself/herself in online courses.	1 2 3 4 5 6 7
My child felt comfortable conversing through the online medium.	1 2 3 4 5 6 7
My child felt comfortable participating in the course discussions.	1 2 3 4 5 6 7
The instructor facilitated discussions in online courses.	1 2 3 4 5 6 7
My child felt comfortable interacting with other course participants.	1 2 3 4 5 6 7
My child felt comfortable disagreeing with other course participants while still maintaining a sense of trust.	1 2 3 4 5 6 7
My child felt that his/her point of view was acknowledged by other course participants.	1 2 3 4 5 6 7
Online discussions help my child to develop a sense of collaboration.	1 2 3 4 5 6 7
Compared to other learning environments, my child's level of learning that took place in an online setting was of the highest quality.	1 2 3 4 5 6 7
Overall, my child's online courses met my expectations.	1 2 3 4 5 6 7
Overall, the instructors of my child's online courses met my expectations.	1 2 3 4 5 6 7

Appendix B

Interview Protocol

Thank you for agreeing to participate in the interview and for completing the survey in advance. We appreciate you taking the time out of your busy schedule! Also, we do need to collect a signed consent form from you if we have not already.

As a reminder, the purpose of our study is to determine: what are parents' perceptions of social presence in their child's online learning experience? How important do parents believe social presence is and why?

Just to let you know, participation is voluntary, and you are free to withdraw at any time. Have you had a chance to review the project consent form? Do you have any questions related to this?

Do I have your permission to record this session (once permission is granted then turn on recorder and verify so they are on "tape" granting permission).

Please feel free to refer to social presence and/or your survey responses as needed throughout the interview. (Social presence is explained in the survey and I will provide the participants a copy of their survey responses before the interview).

Questions

In your survey, you have listed that you're very satisfied/dissatisfied with your child's online learning experience regarding social presence.

> o Can you describe your child's online learning experiences? (e.g., how many courses have they taken online? What's been the nature of these courses?)

> o Can you describe how you envision social presence in online learning? What is its role in the learning process?

> o How would you describe your child's overall online learning experience regarding social presence?

In the survey, you indicated that… (e.g., your child developed a sense of belonging in the course; your child doesn't feel comfortable participating in the course discussion). Can you identify some examples of social presence you've observed? (Specific questions will be adapted based on each participants response)

> o How important do you believe social presence is in your child's online learning? Why?

> o How important do you think your child believes social presence is for their learning? Why?

> o How important do you think it is for teachers to create opportunities for social interaction and collaboration in online learning platforms?

o Can you share specific examples you observed in your child's online learning experiences of interaction and collaboration?

o How important do you think it is for teachers to create a comfortable place for students to communicate in online learning platforms? Why?

o Can you share specific examples you observed in your child's online learning experiences of how the instructor created a comfortable learning environment?

o How important do you think it is for your child to have a sense of the other learners in the class as real people?

o Can you share specific examples you observed in your child's online learning experiences?

o How involved are you in your child's online learning experiences?

o What expectations do you have for social presence to be facilitated in online learning setting?

Closing out

Is there anything else you would like to share that may be related to social presence in young learners online learning that we have not discussed?

On behalf of our research team, thank you again for your time in participating in this interview. Please feel free to reach out to us by email or phone if you have any questions or concerns. We will contact you for verification as we conduct the analysis.