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Demographic Patterns of Peeragogy Learning Tendencies Among Art Students in Chinese Higher Education

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Abstract

This study investigates demographic patterns of peeragogy learning tendencies among art students in Chinese higher education, addressing the limited empirical evidence on how peer-oriented learning approaches are perceived across diverse learner backgrounds. A quantitative survey design was employed, and 350 questionnaires were distributed to students at Yunnan Arts University and the College of Arts, Dali University. A total of 339 valid responses were analysed using descriptive statistics. Peeragogy tendencies were measured across five dimensions: Student-centred, Self-learning, Agreement, Sharing, and Goal-oriented learning. The findings indicate consistently high endorsement of peeragogy across all dimensions, with agreement levels exceeding 95 percent. Minimal variation was observed across gender, academic year, and socioeconomic status, suggesting that demographic characteristics do not substantially influence peeragogy tendencies in the sampled context. Slight differences across year levels may reflect developmental shifts in autonomy and collaborative maturity. Overall, the results suggest that peeragogy is broadly accepted among art students and appears compatible with disciplinary learning cultures in art education. The study contributes empirical evidence to the growing literature on

peer-supported learning in digitally transforming higher education environments.

Keywords: Peeragogy, Art Education, Demographic Characteristics, Student-centred Learning, Self-directed Learning, Collaborative Learning, Socioeconomic Status

1. Introduction

In contemporary higher education, learning environments are rapidly evolving due to the increasing influence of digital technologies, artificial intelligence (AI), and data-driven learning systems that shape how students access information, interact with feedback, and build knowledge in communities (Noroozi et al., 2025; Pu et al., 2025; Werth & Williams, 2022). In art education, the impact is particularly visible, as students increasingly rely on digital tools for creative production and online platforms for sharing artwork, while AI-assisted tools support ideation, iteration, and evaluation of creative outputs (Aoonlamai & Kwangmuang, 2025; Giddings, 2022). Although these developments expand learning opportunities, they also introduce new challenges related to learner autonomy, the quality of collaboration, and the cultivation of critical and reflective artistic practice (Clinton-Lisell, 2021; Werth & Williams, 2023).

One key issue in art education is that students are often exposed to vast amounts of digital content which sometimes including AI-generated materials, without sufficient scaffolding to evaluate credibility, adapt ideas ethically, and integrate knowledge meaningfully into disciplined practice (Pu et al., 2025; Vlachopoulos & Makri, 2024). At the same time, contemporary learning spaces increasingly depend on peer interaction and feedback cycles, yet peer processes vary widely in effectiveness and require careful design to avoid superficial participation (Alqassab et al., 2023; Fleckney et al., 2025). Research syntheses show that well-structured peer feedback and peer assessment can strengthen learners' critical thinking and learning engagement, but outcomes depend on task design, guidance, and social dynamics (Zeng & Ravindran, 2025; Wang et al., 2024). Therefore, learning approaches that promote active participation, shared responsibility, critical discussion, and meaningful peer interaction are increasingly necessary especially for art students who must develop both creative performance and higher-order reasoning about artistic choices (Ceballos et al., 2025; Liu et al., 2024).

Peeragogy which is commonly described as peer-supported, co-constructed learning has gained attention as an approach emphasizing collaborative knowledge building, student agency, mutual contribution, and shared goal-setting (Corneli et al., 2012–2021). In practice, peer-oriented learning structures align closely with art education contexts, where critique, ensemble work, studio collaboration, and iterative production require students to learn with and from peers (Thompson-Bell, 2022). Beyond performance and production, peer feedback processes have been linked to improvements in learners' academic self-concept and reflective capacity, which are important for sustained creative development (Simonsmeier et al., 2020). Moreover, as AI and learning analytics increasingly shape peer learning environments, structured peeragogy may help students develop responsible collaborative norms for evaluating tools, resources, and creative decisions (Noroozi et al., 2025; Cutroni & Paladino, 2023).

From a learning outcomes perspective, peeragogy is also relevant to the development of higher-order thinking skills (HOTS) and creativity. HOTS, often operationalized through analysis, evaluation, and creation that can be fostered through collaborative problem solving

and dialogic critique processes, which require learners to justify reasoning, compare alternatives, and co-develop solutions (Ceballos et al., 2025; Liu et al., 2024). In arts learning, creativity is commonly understood as a continuum from personal insight to everyday creativity and professional-level achievement, suggesting that educational interventions may influence different creativity levels in distinct ways (Kaufman & Beghetto, 2009; Giddings, 2022). Importantly, authentic assessment approaches are frequently recommended for assessing and developing 21st-century competencies such as creativity and critical thinking, because they require learners to demonstrate meaningful performance in context rather than only reproducing content (Vlachopoulos & Makri, 2024).

Despite growing interest in peeragogy and peer-based learning, empirical evidence on students' tendency toward peeragogy remains limited in art education, particularly regarding whether peeragogy tendencies differ across demographic characteristics such as gender, academic year, and socioeconomic status (SES). This gap matters because peer learning participation and confidence can be shaped by prior opportunity structures, access to resources, and experiences with feedback cultures (Alqassab et al., 2023; Zeng & Ravindran, 2025). Within the Chinese higher education context, this issue is especially salient as universities accelerate digital learning adoption while student cohorts remain diverse in background and access, making it important to understand who benefits most from peer-centered learning designs and under what conditions. Consistent with this concern, the present project's preliminary evidence indicates strong overall endorsement of peeragogy dimensions among Chinese art students, while also motivating closer examination of demographic patterns

Therefore, the purpose of this study is to examine the tendency patterns of the peeragogy learning approach among art students in Chinese higher education based on demographic characteristics. Specifically, the study investigates students' endorsement of five peeragogy dimensions which are ***Student-centred, Self-learning, Agreement, Sharing, and Goal-oriented***, across gender, year of study, and socioeconomic status, building on the observed high overall peeragogy endorsement in the sample

By identifying peeragogy tendency patterns and demographic variations, the study provides evidence to support the implementation of peeragogy as a collaborative and student-driven learning approach that responds to current challenges in art education, including AI integration, feedback quality, and digital learning transformation (Corneli et al., 2012–2021; Noroozi et al., 2025; Werth & Williams, 2022).

2. Literature Review

2.1 Peeragogy and Collaborative Learning in Art Education

Peeragogy refers to peer-supported and co-constructed learning in which students actively participate in knowledge building through collaboration, shared inquiry, and mutual feedback (Corneli et al., 2012–2021). Rooted in social constructivist traditions and closely aligned with open pedagogy, peeragogy emphasizes student-centred, self-directed, goal-oriented, and collaborative learning, where learners take responsibility for learning processes while

contributing to shared outcomes (Clinton-Lisell, 2021; Werth & Williams, 2022). Rather than positioning students as passive recipients of knowledge, peeragogy encourages learners to negotiate meaning, coordinate roles, and co-create knowledge resources through peer participation (Corneli et al., 2012–2021; Werth & Williams, 2023).

In art education, collaborative engagement plays a central role. Studio critiques, ensemble performances, group compositions, and project-based productions require students to exchange ideas, evaluate creative outputs, and refine their work through dialogue, practices that align closely with peeragogy principles (Thompson-Bell, 2022; Giddings, 2022). Research on peer learning and peer review of teaching underscores that feedback-rich peer processes can support reflective practice and improve the quality of learning interactions, especially in disciplines where iterative refinement is essential (Cutroni & Paladino, 2023; Simonsmeier et al., 2020). More broadly, collaborative problem solving has been found to promote deeper conceptual understanding through argumentation, shared reasoning, and explanation, which are highly relevant to arts-based inquiry and interpretation (Ceballos et al., 2025).

Despite increasing attention to collaborative approaches in higher education, empirical evidence examining students' tendencies toward peeragogy remains limited, particularly in arts contexts. Understanding students' readiness and acceptance matters because peer learning outcomes depend heavily on participation quality and the design features of peer interaction (Alqassab et al., 2023; Fleckney et al., 2025). This suggests a need to examine whether peeragogy can be implemented effectively in art education settings and for whom it may be most suitable.

2.2 Peeragogy and Higher-Order Thinking Skills (HOTS)

Higher-Order Thinking Skills (HOTS) are widely recognized as essential outcomes in arts education, particularly in learning environments that require interpretation, critique, and creative decision-making (Liu et al., 2024; Giddings, 2022). Bloom's Revised Taxonomy categorizes higher-order cognition into Analysis (C4), Evaluation (C5), and Creation (C6), which in music and arts contexts involve analytical decomposition of artistic structure, critical evaluation of performance or design quality, and creative generation of interpretation or composition (Liu et al., 2024; Thompson-Bell, 2022).

However, research frequently reports that students remain concentrated at lower cognitive levels when instructional approaches lack scaffolding and when assessments do not demand authentic reasoning and production (Vlachopoulos & Makri, 2024; Liu et al., 2024). Teacher-centred environments may reduce opportunities for critical dialogue and independent knowledge construction, limiting sustained engagement in analysis and evaluation (Ceballos et al., 2025). Peeragogy provides a plausible mechanism for advancing HOTS because peer-supported inquiry, critique, and feedback can require learners to justify reasoning, compare alternatives, and refine ideas through dialogic interaction (Ceballos et al., 2025; Zeng & Ravindran, 2025). Systematic reviews of peer feedback also show that well-designed peer processes can foster critical thinking development, although effectiveness depends on feedback structure, guidance, and learner roles (Zeng & Ravindran, 2025; Fleckney et al.,

2025).

Although peeragogy is theoretically linked to higher-order thinking, research remains limited on students' acceptance of peeragogy and whether demographic characteristics shape such tendencies in art education contexts. This is notable given growing attention to technology-enhanced peer learning and the expanding role of AI in peer feedback and assessment processes (Noroozi et al., 2025; Pu et al., 2025).

2.3 Creativity Development in Arts Education

Creativity is central to arts education and can be conceptualized across developmental levels using the Four-C Model: Mini-C (personal creative insight), Little-C (everyday creativity), Pro-C (professional-level creativity), and Big-C (eminent creativity) (Kaufman & Beghetto, 2009). In undergraduate settings, creativity is most commonly observed at the Mini-C and Little-C levels, where students develop personal interpretations and engage in everyday creative experimentation (Kaufman & Beghetto, 2009; Giddings, 2022).

Collaborative environments can support early-stage creativity by encouraging idea sharing, peer critique, and iterative refinement (Thompson-Bell, 2022; Giddings, 2022). Through peeragogy, students articulate creative intentions, receive feedback, and reconstruct ideas collectively, which may strengthen reflective thinking and creative confidence (Simonsmeier et al., 2020; Wang et al., 2024). Evidence from interactive peer assessment approaches also suggests potential benefits for creative self-efficacy and critical thinking when learners engage in structured peer interaction (Wang et al., 2024). At the same time, because AI tools increasingly support ideation and production, creativity development in contemporary arts education is intertwined with how students evaluate and integrate digitally generated inputs that further underscoring the value of reflective and dialogic peer practices (Aoonlamai & Kwangmuang, 2025; Pu et al., 2025).

Nevertheless, students' willingness to participate in peer-supported creative environments may vary across learner backgrounds and experiences, highlighting the importance of examining demographic influences on peeragogy tendencies.

2.4 Demographic Factors and Peeragogy Tendencies

Demographic characteristics such as gender, academic year, and socioeconomic status (SES) may influence students' learning preferences, participation patterns, and engagement in collaborative settings. Prior evidence indicates that peer learning outcomes are shaped by social dynamics and interaction quality, which can differ across groups and contexts (Alqassab et al., 2023; Fleckney et al., 2025).

Gender differences may affect communication styles and participation in critique-oriented interaction, although findings are often inconsistent across settings and designs (Alqassab et al., 2023). Academic progression may shape learner autonomy and self-regulation; more experienced students may be more comfortable with self-directed learning and peer critique cycles (Werth & Williams, 2023; Simonsmeier et al., 2020). Socioeconomic background may also influence access to resources and confidence in navigating technology-rich learning,

which can affect participation in peer assessment and collaborative inquiry (Vlachopoulos & Makri, 2024; Noroozi et al., 2025).

Despite these considerations, limited empirical research has examined how demographic factors relate specifically to peeragogy tendencies in art education. Understanding these patterns is important for designing inclusive peer learning structures and ensuring equitable participation in collaborative learning environments (Fleckney et al., 2025; Werth & Williams, 2022).

2.5 Research Gap

While existing literature highlights the importance of collaborative learning, higher-order thinking, and creativity in art education, there remains a gap in empirical studies investigating students' acceptance of peeragogy and its variation across demographic characteristics (Corneli et al., 2012–2021; Zeng & Ravindran, 2025). This gap is increasingly salient in contexts where digital transformation, AI integration, and technology-enhanced peer learning are reshaping learning practices and assessment (Noroozi et al., 2025; Pu et al., 2025). Therefore, this study seeks to examine demographic patterns of peeragogy learning tendencies among art students in Chinese higher education, focusing on five dimensions, Student-centred, Self-learning, Agreement, Sharing, and Goal-oriented learning that consistent with the study's peeragogy framework.

3. Demographic Profile of Respondents

A total of 350 questionnaires were distributed to students from Yunnan Arts University and the College of Arts, Dali University. A total of 339 valid questionnaires were returned and used for analysis. Respondents' demographic characteristics were analysed using frequency distributions and percentages. The demographic profile of the respondents is presented in Table 1.

Table 1. Demographic background of respondents

Demographic Variable#	Category#	Frequency (f)#	Percentage (%)#
Gender#	Male#	97#	28.6#
	Female#	242#	71.4#
Year of Study#	Year 1#	85#	25.1#
	Year 2#	127#	37.5#
	Year 3#	83#	24.5#
	Year 4#	44#	13.0#
Major#	Music#	216#	63.7#
	Fine Arts#	10#	2.9#
	Design#	13#	3.8#
	Dance#	89#	26.3#
	Drama#	8#	2.4#
	Film and Television#	3#	0.9#
Monthly Family# Income (RMB)#	Less than 2,000#	23#	6.8#
	2,001–3,000#	49#	14.5#
	3,001–4,000#	47#	13.9#
	4,001–5,000#	42#	12.4#
	5,001–6,000#	46#	13.6#
	6,001–7,000#	24#	7.1#
	7,001–8,000#	28#	8.3#
	More than 8,001#	80#	23.6#

Table 1 presents the demographic background of the respondents involved in answering Research Question 1 (RQ1). The table shows that the majority of respondents were female students (71.4%), while male students represented 28.6% of the sample. In terms of academic year, the largest proportion of respondents were from Year 2 (37.5%), followed by Year 1 (25.1%), Year 3 (24.5%), and Year 4 (13.0%). With respect to academic major, most respondents were enrolled in Music (63.7%) and Dance (26.3%), indicating that performing arts students formed the dominant group in the sample. Regarding socioeconomic status, respondents were distributed across different monthly family income levels, with the largest proportion reporting income above RMB 8,001 (23.6%). Overall, the demographic distribution indicates that the sample included students from diverse academic levels, majors, and income groups, providing an appropriate basis for examining peeragogy learning tendencies across demographic characteristics.

4. Results and Descriptive Analysis

This section presents the results of the descriptive statistical analysis conducted to determine

the tendency patterns of peeragogy learning approach among art students based on demographic characteristics. The peeragogy learning approach was examined through five dimensions: Student-centred, Self-learning, Agreement, Sharing, and Goal-oriented. Frequencies and percentages were used to describe students' levels of agreement across the dimensions. The results are presented according to overall trends and demographic patterns including gender, year of study, and socioeconomic status (SES).

4.1 Overall Tendency of Peeragogy Learning Approach

To examine the overall tendency of art students toward the peeragogy learning approach, a descriptive statistical analysis was conducted. The analysis focused on students' levels of agreement across five dimensions of peeragogy, namely Student-centred, Self-learning, Agreement, Sharing, and Goal-oriented. Frequencies and percentages were used to summarize the distribution of responses and to identify the most strongly endorsed dimensions of peeragogy among the respondents.

Table 2. Overall tendency of peeragogy learning approach

Peeragogy Dimension	Agree (f)	Agree (%)	Disagree (f)	Disagree (%)
Student-centred	326	96.2	13	3.8
Self-learning	333	98.2	6	1.8
Agreement	335	98.8	4	1.2
Sharing	332	97.9	7	2.1
Goal-oriented	333	98.2	6	1.8

The findings in Table 2 indicate that art students demonstrate a very high acceptance of the peeragogy learning approach. Agreement levels for all dimensions exceeded 95%, suggesting that peeragogy is strongly supported among the respondents. The dimension of Agreement recorded the highest endorsement rate (98.8%), followed closely by Self-learning and Goal-oriented (98.2%). Sharing also received strong agreement (97.9%), while Student-centred recorded the lowest endorsement rate (96.2%), although still at a high level. Overall, the results show that art students exhibit strong tendencies toward collaborative learning, self-directed learning, and goal-driven engagement.

4.2 Based on Gender

To determine whether gender influences art students' tendency toward the peeragogy learning approach, a descriptive analysis was conducted by comparing male and female students' levels of agreement across the five peeragogy dimensions: Student-centred, Self-learning, Agreement, Sharing, and Goal-oriented. The results are presented in percentages to highlight the level of endorsement for each dimension across gender groups. Table 3 summarizes the peeragogy tendencies of male and female students across the five dimensions.

Table 3. Based on gender (agree %)

Peeragogy Dimension#	Male#(%)#	Female#(%)#
Student-centred#	94.8#	96.7#
Self-learning#	95.9#	99.2#
Agreement#	99.0#	98.8#
Sharing#	99.0#	97.5#
Goal-oriented#	97.9#	98.3#

The results in Table 3 indicate that both male and female students demonstrate consistently high endorsement of the peeragogy learning approach across all five dimensions. Among male students, the highest agreement was recorded in Agreement and Sharing (99.0%), suggesting strong collaborative learning tendencies and willingness to participate in peer interaction. In contrast, female students showed the highest agreement in Self-learning (99.2%), indicating stronger emphasis on autonomy and self-regulated learning. Although minor differences were observed between male and female students, the overall pattern suggests that gender does not produce meaningful variation in peeragogy tendency patterns. This conclusion is supported by the fact that both groups reported agreement levels above 94% across all dimensions, reflecting a shared and highly positive perception of peeragogy among art students regardless of gender.

4.3 Based on Year of Study

To examine whether students' academic progression influences their tendency toward the peeragogy learning approach, a descriptive analysis was conducted across four-year levels of study. Students' agreement rates were compared across the five dimensions of peeragogy: Student-centred, Self-learning, Agreement, Sharing, and Goal-oriented. This analysis provides insight into whether peeragogy tendencies vary according to students' learning maturity and experience in the programme. Table 4 presents peeragogy tendencies across students' academic year levels.

Table 4. Based on year of study (agree %)

Peeragogy Dimension#	Year 1#	Year 2#	Year 3#	Year 4#
Student-centred#	97.6#	94.5#	96.4#	97.7#
Self-learning#	98.8#	96.9#	98.8#	100.0#
Agreement#	100.0#	97.6#	100.0#	97.7#
Sharing#	97.6#	96.9#	98.8#	100.0#
Goal-oriented#	97.6#	97.6#	100.0#	97.7#

The findings in Table 4 indicate that students across all academic year levels reported strong acceptance of the peeragogy learning approach, with agreement rates ranging from

approximately 94% to 100%. First-year students demonstrated full agreement (100%) in the Agreement dimension, suggesting high receptiveness to collaborative learning and shared responsibility. Third-year students recorded full agreement (100%) in both Agreement and Goal-oriented, indicating strong learning purposefulness and active peer collaboration. Fourth-year students showed full agreement (100%) in Self-learning and sharing, reflecting increased independence and cooperative participation at the advanced stage of study. In contrast, second-year students recorded slightly lower agreement levels compared to other year groups, with endorsement ranging from 94.5% to 97.6%. However, despite this minor decline, second-year students still demonstrated high overall acceptance of peeragogy across all dimensions. Overall, the results suggest that peeragogy tendencies remain consistently high across year levels, with slight variations that may reflect developmental shifts in autonomy, learning confidence, and collaborative maturity as students' progress through their studies.

4.4 Based on Socioeconomic Status (SES)

To examine whether socioeconomic status (SES) influences students' tendencies toward the peeragogy learning approach, a descriptive analysis was conducted across different monthly family income groups. Students were categorized into eight income levels based on regional minimum wage standards. Agreement patterns were analysed across the five dimensions of peeragogy: Student-centred, Self-learning, Agreement, Sharing, and Goal-oriented. The analysis aims to determine whether family income levels contribute to variations in peeragogy endorsement. Table 5 presents the summary of peeragogy tendencies across socioeconomic status groups.

Table 5. Based on Socioeconomic status (%)

Monthly Family Income (RMB)	**Student-centred**	**Self-learning**	**Agreement**	**Sharing**	**Goal-oriented**
< 2,000	91.3	—	—	—	—
2,001–3,000	100.0	100.0	100.0	100.0	100.0
4,001–5,000	—	97.8–100.0	—	—	97.8–100.0
5,001–6,000	—	97.8–100.0	—	—	97.8–100.0
7,001–8,000	—	—	—	98.8–100.0	98.8–100.0
> 8,001	—	—	—	98.8–100.0	98.8–100.0

Table 5 presents the agreement percentages of peeragogy tendencies across different monthly family income (SES) groups. The results show that peeragogy is highly endorsed across income levels, with the RMB 2,001–3,000 group recording the highest agreement (100%) across all five dimensions. The lowest reported value was found among students earning below RMB 2,000 in the Student-centred dimension (91.3%). Middle- and higher-income groups also demonstrated strong endorsement, particularly in the Self-learning, Sharing, and Goal-oriented dimensions, with agreement levels ranging from 97.8% to 100.0%.

4.5 Summary of the Findings

This section summarizes the key findings of the study regarding art students' tendency toward the peeragogy learning approach based on demographic characteristics. The results consistently demonstrate a high level of acceptance of peeragogy across all five dimensions: Student-centred, Self-learning, Agreement, Sharing, and Goal-oriented.

First, the overall analysis revealed that agreement levels exceeded 95% across all dimensions. The highest endorsement was recorded in the Agreement dimension (98.8%), followed closely by Self-learning and Goal-oriented (98.2%). Sharing also received strong support (97.9%), while Student-centred, although slightly lower at 96.2%, still reflected a very high level of acceptance. These findings indicate that art students strongly value collaborative engagement, autonomy in learning, and purposeful goal orientation within their academic experience.

Second, the gender-based analysis showed minimal differences between male and female students. Both groups reported agreement levels above 94% across all five dimensions. Male students demonstrated slightly higher endorsement in Agreement and Sharing, while female students showed slightly stronger agreement in Self-learning. However, these differences were minor and do not suggest meaningful variation in peeragogy tendencies based on gender.

Third, the analysis based on year of study indicated consistently high agreement across all academic levels. First-year students showed full agreement in the Agreement dimension, third-year students recorded full agreement in Agreement and Goal-oriented, and fourth-year students achieved full agreement in Self-learning and Sharing. Although second-year students reported slightly lower endorsement rates compared to other years, their agreement levels remained high overall. These patterns suggest that peeragogy tendencies are maintained throughout academic progression, with slight variations possibly reflecting developmental shifts in autonomy and collaborative maturity.

Finally, the socioeconomic status (SES) analysis demonstrated that students from all income groups expressed strong endorsement of peeragogy. The RMB 2,001–3,000 income group showed the highest agreement, achieving 100% across all dimensions. Although students with incomes below RMB 2,000 reported slightly lower agreement in the Student-centred dimension, overall endorsement remained high. Similarly, middle- and higher-income groups exhibited strong agreement, particularly in Self-learning, Sharing, and Goal-oriented dimensions. These findings indicate that SES does not significantly influence students' acceptance of peeragogy.

The study findings consistently show that art students exhibit a strong and uniform tendency toward the peeragogy learning approach, regardless of gender, year of study, or socioeconomic status. The high agreement levels across all demographic groups suggest that peeragogy is broadly compatible with the learning characteristics and educational context of art students.

5. Discussion of Results with Previous Studies

This study examined demographic patterns of peeragogy learning tendencies among art students in Chinese higher education. The findings revealed consistently high endorsement across all five dimensions—Student-centred, Self-learning, Agreement, Sharing, and Goal-oriented—with agreement levels exceeding 95% in nearly all categories. While these results indicate strong receptiveness toward peer-supported learning, deeper interpretation is necessary to understand the factors underlying such uniformly high endorsement.

5.1 Interpretation of High Pedagogy Endorsement

The strong endorsement of the Agreement dimension, followed closely by Self-learning and Goal-oriented learning, aligns conceptually with peeragogy and open pedagogy frameworks emphasizing shared norms, mutual contribution, and learner agency (Corneli et al., 2012–2021; Werth & Williams, 2022). Systematic reviews of peer assessment design suggest that when students perceive collaborative structures as purposeful and transparent, acceptance and engagement levels increase significantly (Fleckney et al., 2025; Alqassab et al., 2023). The present findings are consistent with this evidence, indicating that art students value structured peer interaction and collaborative learning processes.

However, endorsement levels approaching ceiling values (94–100%) warrant critical reflection. Such uniformly high agreement may reflect not only genuine pedagogical alignment but also contextual influences. In East Asian educational cultures shaped by collectivist norms, students may exhibit strong endorsement of collaborative frameworks due to cultural emphasis on harmony, cooperation, and alignment with institutional expectations. Therefore, high reported agreement should be interpreted cautiously as an indicator of positive disposition rather than definitive evidence of deep pedagogical transformation. Future research employing qualitative methods would be necessary to examine how peeragogy is enacted in practice and whether high endorsement corresponds to substantive engagement.

Disciplinary factors may also explain the findings. The sample was dominated by performing arts students (Music and Dance), disciplines in which ensemble rehearsal, critique sessions, and collaborative production are structurally embedded. Such learning cultures normalize peer feedback and shared goal setting (Thompson-Bell, 2022; Giddings, 2022). In these contexts, peeragogy may not represent a radical shift but rather a formal articulation of already-existing studio and rehearsal practices. This disciplinary alignment likely contributes to strong endorsement of Sharing and Goal-oriented dimensions.

Institutionally, the increasing integration of digital tools and AI-supported learning environments may further reinforce peer-oriented norms (Noroozi et al., 2025; Pu et al., 2025). As students engage with collaborative platforms and technology-enhanced feedback systems, peer interaction becomes a central component of academic practice. Thus, the findings may reflect adaptation to evolving learning ecologies in which autonomy and collaboration coexist.

5.2 Demographic Patterns and Implications

The gender analysis revealed minimal variation between male and female students. Both groups demonstrated consistently high endorsement across dimensions, suggesting that peeragogy acceptance is not meaningfully shaped by gender in this sample. This finding supports research indicating that peer learning outcomes are often more strongly influenced by task design and feedback structure than by demographic variables (Alqassab et al., 2023; Fleckney et al., 2025). In art education, where critique and collaborative refinement are routine, gender-based participation differences may be reduced.

Across year levels, endorsement remained consistently high, with slight variations suggesting developmental shifts. Senior students showed relatively stronger tendencies toward autonomy and peer sharing, aligning with literature indicating that academic progression supports increased self-regulation and confidence in critique-oriented interaction (Simonsmeier et al., 2020; Werth & Williams, 2023). The strong endorsement among first-year students may reflect prior exposure to digitally mediated collaborative learning environments before university entry. These patterns suggest that peeragogy tendencies are stable across academic progression, though longitudinal investigation would be required to confirm developmental trends.

Socioeconomic status (SES) showed similarly limited variation. Although the lowest income group recorded slightly lower endorsement in the Student-centred dimension, agreement remained high overall. This suggests that peeragogy may be perceived as accessible across economic backgrounds. However, SES was measured solely through monthly family income, which may not fully capture digital access, educational capital, or prior exposure to collaborative practices. Therefore, the absence of significant SES variation should be interpreted cautiously.

5.3 Theoretical and Educational Implications

The findings reinforce theoretical claims that peeragogy aligns well with disciplines requiring iterative critique, co-construction, and reflective practice. High endorsement of Self-learning and Goal-oriented dimensions indicates that art students value autonomy combined with purposeful collaboration. Such patterns are consistent with research linking structured peer processes to higher-order thinking and creativity development (Ceballos et al., 2025; Wang et al., 2024; Kaufman & Beghetto, 2009).

In digitally transformed learning environments, peeragogy may also serve as a framework for responsible AI integration, as students increasingly evaluate creative outputs supported by intelligent tools (Noroozi et al., 2025). Structured peer dialogue can promote critical reflection on tool use, authorship, and creative decision-making. Thus, the study contributes to understanding how peeragogy may support both disciplinary practice and emerging digital learning contexts.

5.4 Limitations

Several limitations should be acknowledged.

- First, the study employed descriptive statistics without inferential analysis. While agreement levels appear consistent across demographics, statistical testing (e.g., ANOVA, regression) would be necessary to confirm the absence of significant differences.
- Second, the sample was drawn from two institutions and was heavily concentrated in performing arts majors, which may limit generalizability to other art disciplines or institutional contexts.
- Third, the reliance on self-reported survey data introduces the possibility of social desirability bias, particularly in environments where collaborative learning is institutionally valued.
- Fourth, the cross-sectional design prevents examination of longitudinal development in peeragogy tendencies.
- Finally, the high agreement rates suggest potential ceiling effects in the measurement instrument, limiting sensitivity to detect nuanced variation.

Future research should incorporate inferential statistical analysis, qualitative inquiry, and longitudinal designs to explore how peeragogy tendencies translate into actual classroom practices and learning outcomes.

Overall, the study provides empirical evidence that peeragogy is broadly endorsed among art students in the sampled Chinese higher education context. However, high endorsement should be interpreted as receptiveness shaped by cultural norms, disciplinary traditions, and institutional structures rather than as definitive proof of deep pedagogical transformation. By situating peeragogy within broader discussions of collaborative learning, higher-order thinking, and digital transformation, the study contributes to ongoing efforts to design inclusive, reflective, and student-driven learning environments in contemporary art education.

6. Conclusion

This study examined demographic patterns of peeragogy learning tendencies among art students in Chinese higher education. Using a quantitative survey design, the research investigated five dimensions of peeragogy, namely Student-centred, Self-learning, Agreement, Sharing, and Goal-oriented learning, across gender, academic year, and socioeconomic status. The findings demonstrate consistently high endorsement of peeragogy across all dimensions, with agreement levels exceeding 95% in most categories. These results suggest that peeragogy is broadly compatible with the learning characteristics of art students within the sampled institutions.

Importantly, the study found minimal variation across demographic groups. Gender differences were negligible, year-level variations were minor and potentially developmental in nature, and socioeconomic status showed limited influence on peeragogy tendencies. These patterns indicate that peeragogy appears to function as an inclusive and broadly acceptable learning approach across diverse student backgrounds. The strong endorsement of Agreement and Self-learning dimensions further suggests that art students value structured collaboration alongside autonomy in learning processes.

From a theoretical perspective, the findings reinforce arguments within peeragogy and open pedagogy literature that collaborative, co-constructed learning aligns with disciplines emphasizing critique, performance, and iterative refinement. In art education, where ensemble work, studio critique, and peer feedback are foundational practices, peeragogy may not represent a radical innovation but rather a structured formalization of existing disciplinary norms. Additionally, in digitally mediated learning environments increasingly influenced by artificial intelligence and collaborative platforms, peeragogy offers a framework for cultivating reflective, responsible, and dialogic engagement in creative processes.

Nevertheless, the conclusion must be interpreted with caution. The descriptive nature of the analysis limits claims regarding statistical significance, and the high agreement levels raise the possibility of ceiling effects. Furthermore, reliance on self-reported data restricts insight into how peeragogy is enacted in practice. Therefore, while the study provides preliminary evidence of strong peeragogy acceptance, it does not yet establish causal relationships between peeragogy tendencies and learning outcomes such as higher-order thinking or creativity development.

Future research should extend this work by incorporating inferential statistical analysis, qualitative exploration of classroom implementation, and longitudinal designs to examine developmental trajectories. Broader sampling across institutions and art disciplines would also strengthen generalizability. Additionally, examining how peeragogy interacts with AI-supported learning tools may provide valuable insight into evolving collaborative learning environments.

In conclusion, this study contributes empirical evidence to the limited body of research examining peeragogy tendencies in art education and highlights its potential as a collaborative, student-driven approach adaptable across demographic groups. By situating peeragogy within contemporary educational transformation, the study supports continued exploration of inclusive, dialogic, and reflective pedagogical models in higher art education.

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