

# Factors influencing student engagement in online ideological and political education: a qualitative study of vocational college students in China



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## ABSTRACT

The COVID-19 pandemic accelerated the global shift to online education, exposing both opportunities and challenges in ideological and political (I&P) courses at Chinese higher vocational colleges, where student engagement remains pivotal yet underexplored. This qualitative study examines how students perceive and experience engagement in online I&P courses framed by Activity Theory, Social Interaction, and Critical Pedagogy. Semi-structured interviews were conducted with 30 students (15 males, 15 females; freshman to junior cohorts) from Anhui Vocational and Technical College, using Tencent Meetings for 30-minute sessions. Thematic analysis identified two core themes: (1) Infrastructure—students emphasized the necessity of clear rules, stable platforms (e.g., MOOCs, ClassIn), and teacher responsiveness to foster accountability; (2) Engagement Dynamics—peer collaboration, real-world case studies, and critical discussions enhanced motivation, while poor internet connectivity, abstract content, and self-regulation struggles impeded participation. Notably, students highlighted the transformative potential of interactive tools (e.g., real-time Q&A, role-playing simulations) in bridging theory and practice. Limitations include the single-institution sample, potential response bias, and lack of longitudinal data. Nevertheless, findings offer actionable insights: educators should design modular content aligned with vocational contexts, integrate adaptive technologies to mitigate connectivity issues and implement structured peer-review systems to sustain motivation. Institutional support for digital literacy training and hybrid learning models is also critical. Future research should expand to diverse regions, incorporate mixed methods, and track long-term outcomes to strengthen pedagogical strategies in online I&P education.



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## 1. Introduction

Remote online learning (ROL), broadly defined as using internet-based modalities for instructional delivery [1], has become increasingly prominent in higher education. This expansion has been fueled by developing and deploying diverse digital resources, including online learning platforms, videoconferencing systems, and other technologies [2], [3]. Alongside improving access and convenience, these tools have introduced new complexities that warrant closer examinations, particularly regarding their impact on teaching methods, learning processes, and student engagement [4]–[11]. ROL in higher education is distinct from other forms of learning due to its emphasis on learner autonomy, the need for sophisticated digital literacy skills, and the potential for flexible, asynchronous learning experiences that cater to diverse student needs and schedules. It often involves a blend of synchronous and asynchronous activities, requiring students to manage their time and engage with technology in ways that are not always present in traditional classrooms. This is especially true in China, where the COVID-19 pandemic forced a rapid shift to online teaching and learning

across all educational levels. Ideological and Political (I&P) courses are a core part of the curriculum in Chinese higher education, aiming to cultivate students' political literacy and ideological awareness. In the online environment, engaging students in these courses presents unique challenges. These challenges include difficulties in fostering social interaction and a sense of community, student motivation issues arising from a lack of face-to-face accountability, and technical constraints such as limited access to technology or poor internet connectivity, which can hinder active student engagement. This study aims to explore student perspectives on engagement in online I&P courses at higher vocational institutions in China during the pandemic to identify effective strategies for enhancing student participation and learning outcomes.

Previous research has examined various aspects of online learning, including student engagement, motivation, and learning outcomes [12]–[14]. Key factors influencing student engagement in online learning include course design [15], teacher presence [16], [17], peer interaction [18], [19], and the use of technology [20], [21]. Activity Theory provides a framework for understanding how students interact with the online learning environment [22]. Social Interaction theory highlights the importance of communication and collaboration in learning [23]. Critical Pedagogy emphasizes the role of critical thinking and reflection in empowering learners [24], [25]. However, there is limited research specifically focused on student engagement in online I&P courses, particularly in the context of Chinese higher vocational education [26]–[28]. While studies have explored online learning in general [12], [13], the unique characteristics of I&P courses, with their specific ideological goals and pedagogical approaches, require further investigation [28].

This study aims to address this gap by investigating the factors that influence student engagement in online I&P courses from the student perspective. The findings will provide insights for educators and institutions on designing and implementing effective online I&P courses that foster student engagement and promote meaningful learning. These practical recommendations include teaching techniques such as active learning strategies, new technological approaches like integrating interactive simulations, and strategies to increase student engagement in online learning through personalized feedback and community-building activities. This research contributes to the field by providing empirical evidence on student experiences in online I&P courses in a unique educational setting, offering practical recommendations for improving online I&P pedagogy.

## 2. Method

### 2.1. Research Design

This study employs a qualitative research design [29] to investigate student engagement in online Ideological and Political (I&P) courses within higher vocational colleges. This approach is particularly suitable for exploring the complex and nuanced experiences of students in online learning environments. To provide a robust theoretical foundation, the study is guided by three complementary frameworks:

- Activity Theory (AT): This framework helps to understand how the learner (subject) interacts with learning tools (mediating tools) within a learning environment (community) governed by rules (rules) and with a specific purpose (object). This study uses AT to analyze how students interact with online platforms and course materials to achieve engagement.
- Social Interaction (SOI): Recognizing the importance of social connections in learning, SOI is used to examine the nature of student-teacher, student-student, and student-content relationships in online I&P courses.
- Critical Pedagogy (CP): With its focus on power dynamics, critical reflection, and learner empowerment, CP informs the analysis of how students engage with ideological content and develop their own voices and agency within the learning process.

The study utilizes the “research onion” framework [30] to structure the methodological decisions, providing a clear roadmap from philosophical assumptions to specific data collection and analysis techniques, see Fig. 1.

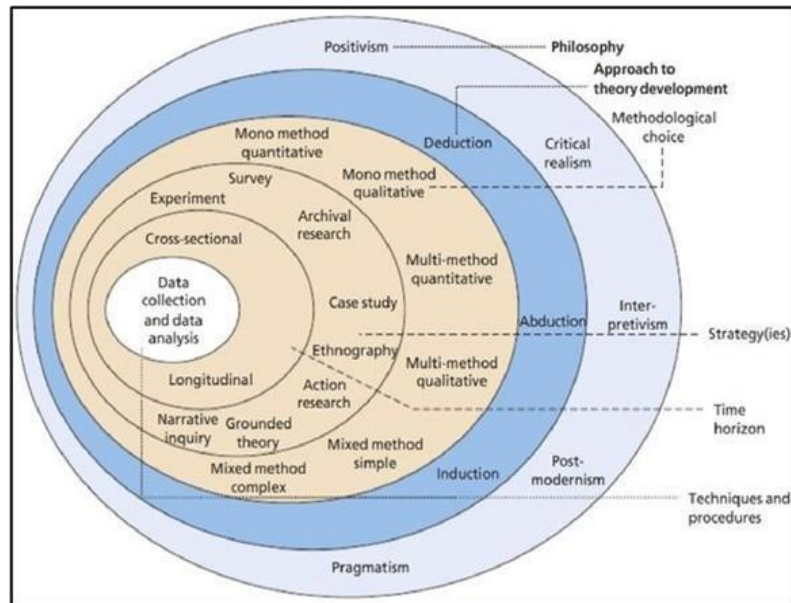


Fig. 1. The Research Onion [30]

## 2.2. Participants and Sampling

While quantitative research often necessitates larger sample sizes, adhering to guidelines such as [31] recommendation of a 5:1 subject-to-variable ratio, qualitative studies, as noted by Creswell and Plano Clark [32], typically employ smaller samples to achieve depth understanding. The study focused on students from higher vocational colleges in Anhui and Chuzhou, China, where online I&P courses have become increasingly prevalent. The target population comprised approximately 20,000 college students in Anhui Province. A purposive sampling strategy was used to select 30 student participants from freshman, sophomore, and junior cohorts. This sample size is appropriate for in-depth qualitative research, allowing for rich and detailed data collection. The selection aimed to ensure representation across academic levels to capture diverse perspectives on online I&P course engagement. Participants were informed about the study's purpose and provided informed consent.

## 2.3. Data Collection

Data was collected through semi-structured interviews, a method well-suited for exploring participants' experiences and perspectives in detail. Interview questions were designed based on existing literature, as Castro *et al.* [33] suggested, and adapted from Young and Bruce's remote online student engagement survey instrument to ensure relevance to the online learning context. To ensure content validity, interview prompts were developed through a multi-step process: (1) Initial items were adapted from established research on engagement; (2) Subject matter experts reviewed the prompts for relevance and clarity; (3) Revisions were made based on expert feedback, including merging redundant questions, refining language, and improving the focus of questions. More details have been provided in section 2.4. Interviews were conducted online via Tencent Meetings or similar platforms for convenience and accessibility. Each interview lasted approximately 30 minutes. Audio recordings were securely stored and transcribed verbatim for analysis.

## 2.4. Interview Content Validity

Content validity refers to the extent to which an instrument's items comprehensively and accurately represent the concept or construction being measured. In this study, the qualitative interview prompts for online ideological and political course engagement were developed through a multistep process designed to maximize content validity. Initial items were adapted from established research [15], [34], [35], ensuring that each question aligned with recognized dimensions of engagement—such as Rules, Subject, Object, Division of Labor, Communities, Mediating Tools, and others. By grounding the measure in prior theoretical and empirical work, the instrument captured a wide range of factors known to affect student engagement in online learning. Subject matter experts reviewed each qualitative prompt and quantitative item, assessing Relevance (*i.e.*, how well an item reflected the intended construct) and Clarity (*i.e.*, how straightforward and unambiguous the wording was). Their suggestions led to modifications such as merging redundant questions, refining vague

language, and highlighting specific behaviors or outcomes (e.g., “consistently submit assignments on time” vs. “complete all assigned class work”). Proposed changes were then consolidated into comparative “before and after” tables. For quantitative items, evaluators recommended edits like replacing “put in much effort” with “invest significant effort” and emphasizing “easy to follow” guidelines instead of “very clear.” These enhancements ensure that each question is both conceptually precise and linguistically accessible, reducing ambiguity and potential misinterpretation. Each revised item was mapped back to its defined construct. For example, “The schedule of online ideological and political courses provided by the teacher is very organized.” was aligned under the student–Teacher Interaction (ST) component, emphasizing the teacher’s role in organizing the course. Similarly, clarifications for Subject items (e.g., “I actively participate in ideological and political online learning activities and strive to complete online learning tasks”) reinforce the concept of student autonomy and motivation. By systematically incorporating expert feedback, the study ensured balanced coverage of all critical aspects of engagement, ranging from the Rules that govern online course behavior to the Empowerment dimensions that assess students’ perceived agency and voice. This comprehensive approach supports a stronger claim that the instrument represents the full domain of online ideological and political course engagement. These steps contribute to the content validity of both the qualitative and quantitative measures. The systematic review by experts, guided revisions, and clear mapping to theoretical constructions help ensure that the final items offer a thorough, accurate assessment of student engagement within vocational online ideological and political courses. Terminology adjustments (e.g., “political education” → “ideological and political”) ensure consistency with course nomenclature. Pronoun shifts (e.g., “you” → “I”) standardize responses to first-person for survey clarity. Compound questions were split into distinct items (e.g., MET-1 and MET-2) to enhance measurement precision. Redundant phrases (e.g., “and with care”) were removed to streamline items. Constructs (e.g., SOI, SUB) were aligned with thematic categories for analytical coherence. Based on evaluator feedback, Selected modifications to the qualitative items are shown in Table 1.

**Table 1.** Modified Qualitative Items Based on Evaluators’ Comments

Item / Construct	Before Evaluators’ Comments (Original Scale)	After Evaluators’ Comments (Revised Version)	Rationale
Online Learning Tools	Q1: “What online learning tools do you frequently use... What factors encourage your active participation?”	Q9: “Which online learning tools do you frequently use...” (Simplified to focus on tools only).	Removed repetitive questions (e.g., “participation factors” split into other questions) and focused on tool usage to avoid confusion.
Engagement Factors	Q1: “What factors encourage your active participation... flexibility, seeking help...”	Q1: “Recall a specific instance when you felt engaged/disengaged... What factors contributed?”	Shifted from abstract questions to specific scenario recall, enhancing depth and empirical evidence.
Course Design Impact	Q3: “How do you perceive the clarity of tasks and rules... How do these affect participation?”	Q3-Q4: “How do course design elements (structure, interactivity) influence your motivation and interest?”	Split questions to focus separately on “motivation” and “interest” clarified research variables for better analytical precision.
Instructor Role	Q6: “How do you evaluate the impact of teacher’s support... social circle?”	Q5-Q6: “What role does the instructor’s style and approach play in engagement?”	Merged repetitive questions (original Q6/Q7), differentiated “teaching style” and “teaching methods,” refined exploration of the instructor’s role.
Pre-COVID Experience	Q12: “Before COVID-19, did you have online course experience...?”	Q7-Q8: “Before COVID-19, did you have online experience? Did it benefit you this semester?”	Merged original Q12 and Q13, simplified flow, and directly linked early experience to current engagement.

## 2.5. Data Analysis

Data analysis was conducted using thematic analysis, following Braun & Clarke's [36] six-phase framework. This method allows for systematic identification, organization, and interpretation of patterns within qualitative data. The analysis involved the following steps.

- **Transcription and Familiarization:** Interview recordings were transcribed, and researchers immersed themselves in the data through repeated reading.
- **Coding:** Initial codes were generated inductively from the data, capturing key concepts and ideas. The theoretical frameworks deductively informed subsequent coding: (1) Activity Theory: Codes were assigned to data related to tools, rules, community, division of labor, and objects. This allowed for analysis of how these elements influenced student engagement: (2) Social Interaction: Codes focused on student-student, student-teacher, and student-content interactions, revealing the nature of relationships and communication patterns: (3) Critical Pedagogy: Codes identified instances of power relations, critical reflection, and student empowerment, shedding light on how students engaged with ideological content and developed agency.
- **Theme Development:** Codes were organized into broader themes and sub-themes, exploring their interrelationships to provide a holistic view of student engagement.
- **Interpretation:** Themes were interpreted through the lens of AT, SOI, and CP, demonstrating how these theories explain the observed patterns of student engagement. Participant quotes were used to illustrate and support the findings.
- **Organization of Findings:** Findings were structured around two main dimensions: Infrastructure (factors supporting online learning) and Student Engagement (how students actively engage), providing a clear and organized presentation of the results.

This systematic approach ensured a rigorous and transparent analysis, addressing the research questions and providing a comprehensive understanding of student engagement in online I&P courses.

## 2.6. Ethical Issues

Ethical considerations arise at various stages of the research process, from the study's inception to data collection and analysis [29]. To address potential ethical challenges, Baker & Edwards [37] recommend researchers establish supportive, respectful relationships with participants and carefully evaluate the potential difficulties or anxieties that may emerge during disclosure. This study obtained approval from AVTC (Anhui Vocational and Technical College), and multiple supervisors granted permission before data collection. Participants were fully informed of the study's aims and methodologies, providing informed consent before responding to survey questions or agreeing to potential qualitative interviews. Consistent with the American Psychological Association [38] guidelines, participants were informed of their option to withdraw at any point and reassured that all data would remain strictly confidential. Data is stored electronically in encrypted files on a secure, study-specific server. While virtual, face-to-face interviews (*e.g.*, Zoom) cannot guarantee complete anonymity, every precaution—such as using pseudonyms and restricting identifiable information—was taken to safeguard participant identities. Interview data has been retained indefinitely to facilitate the ongoing study process and support professional presentations. All identifiable information, including access logs and transcriptions, was anonymized one month after the study's conclusion. Pseudonyms replaced actual names to protect participant privacy further. Exclusive access to the research data is restricted to the immediate research team, ensuring only authorized individuals handle the information. As an additional measure of transparency, participants were informed that findings would be shared upon completion of the study.

## 3. Results and Discussion

The findings of this study revealed several key themes related to student engagement in online I&P courses. Students emphasized the importance of clear course objectives and expectations aligning with established pedagogical principles. Clear learning objectives help students understand the purpose of learning activities and provide a framework for them [39]. Well-organized learning materials were also seen as crucial, supporting effective instructional design principles. For example, Mayer's Cognitive Theory of Multimedia Learning [40] suggests that learning is enhanced when information

is presented clearly and organized using visual and auditory channels. Opportunities for interaction with teachers and peers were highlighted as essential for fostering a sense of community and belonging, consistent with social learning theories. Bandura's Social Cognitive Theory [41] emphasizes the role of social interaction and observation in learning, highlighting that learners acquire knowledge and skills by interacting with and observing others. They also highlighted the role of technology in facilitating engagement, such as the use of multimedia elements and interactive activities, which can enhance motivation and learning outcomes [42]. Prensky [43] famously discussed "digital natives" and how technology can be leveraged, though it's important to note the need for nuanced application [44]. However, students also reported challenges, including difficulties with self-regulation, time management, and technical issues, which are common challenges in online learning environments [45], [46].

These findings suggest that creating an engaging online learning environment for I&P courses requires careful attention to course design, pedagogy, and technology. Providing students with clear guidance, support, and opportunities for active participation is important. The use of technology can enhance engagement, but it is crucial to address potential challenges and ensure that students have the necessary skills and resources to succeed. Furthermore, the application of Critical Pedagogy can empower students to critically analyze and engage with the ideological content, promoting deeper understanding and reflection [47], [48]. Fig. 2. Shows the Concept Map of Qualitative Findings.

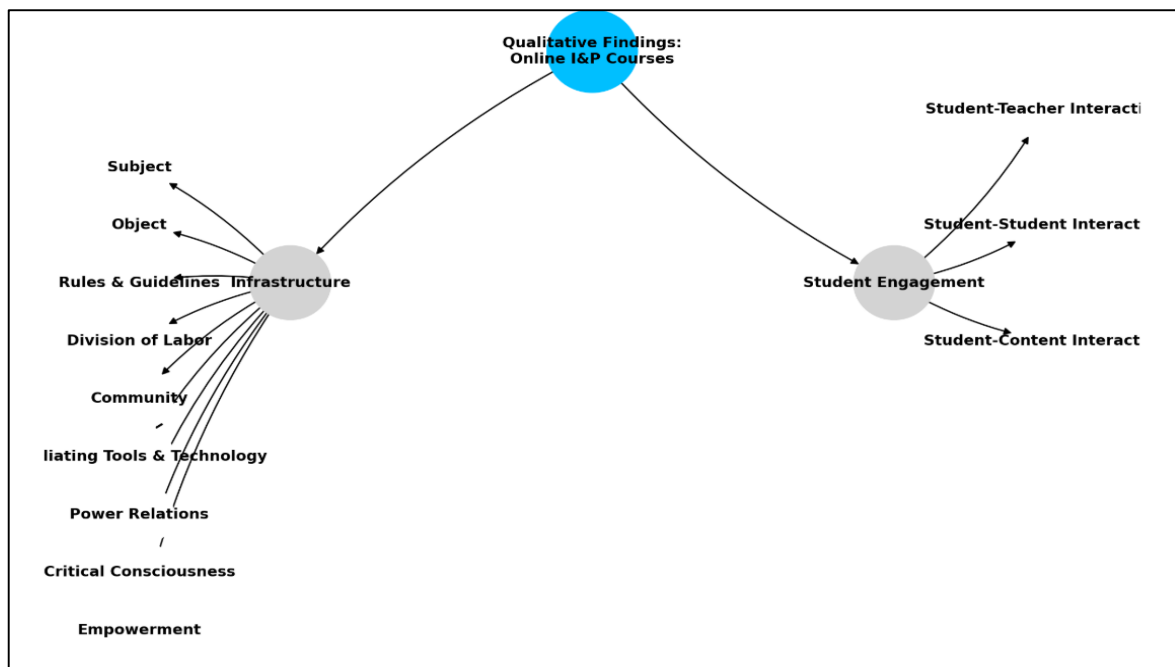


Fig. 2. Concept Map of Qualitative Findings

### 3.1. Themes 1: Infrastructure

Theme 1, "Infrastructure," emerged as foundational in understanding student experiences within online Ideological and Political (I&P) courses. This theme encapsulates the students' perceptions and experiences related to the structural and organizational aspects of the virtual learning environment. It delves into how the design and implementation of course policies, technological platforms, and communication strategies influence student engagement and learning outcomes. Crucially, "Infrastructure" extends beyond mere technical functionality, encompassing the clarity and consistency of course rules, the accessibility and usability of learning management systems, and the effectiveness of communication channels. Students' narratives within this theme highlighted the critical role of a well-defined and supportive infrastructure in creating a conducive online learning space. It became evident that a robust infrastructure facilitates efficient learning and fosters a sense of security and clarity, enabling students to navigate the complexities of online I&P courses with greater confidence and focus.

#### 3.1.1. Subject

- Student Demographics and Background: Interviewing first- and third-year university students aged 18 to 22 revealed diverse perspectives on the transition to online ideological and political

(I&P) courses. Participants came from a range of majors—including humanities, science, engineering, and business—and were fairly balanced in terms of gender. Some students reported seeing few gender-based differences in study habits, though a subset, such as Xiao Luo (a female sophomore majoring in humanities), observed that women and men sometimes diverged in discussing sensitive or controversial topics: “In my group, female students are more open about ethical issues, while some male peers stay quiet unless prompted.” These comments suggest that gender may shape how students express their views, even if it does not fundamentally alter learning approaches. Academic background also influences student engagement. Li Mei (a junior history major) gravitated toward debates that allowed her to link theoretical frameworks with contemporary events, whereas Chen Bin (a sophomore in electrical engineering) sought practical, problem-solving strategies: “When I hear about an abstract concept, I want to see how it works in the real world, or I lose interest.” Such disciplinary orientations underscore the heterogeneity of student needs and their expectations for course content (Some students, Xiao Luo, Li Mei, Chen Bin).

- **Evolving Learning Habits in the Pandemic Context:** Prior to the pandemic, group discussions and team-based projects were central to many students’ study routines. Qian Fei (a sophomore economics major) recalled that in-person interactions after class “let us share ideas more spontaneously, whether we were critiquing an article or rehearsing for debates.” When public health measures forced coursework online, communal habits had to be restructured around virtual platforms and scheduling constraints. Several students adapted effectively by leveraging digital tools. Zhang (a sophomore in computer science) appreciated the flexibility of asynchronous lectures: “I can watch recordings at double speed if I’m comfortable with the material, then slow down for topics I find tricky.” Yet he missed the unpredictable moments of classroom discussion, describing “those random chats after class that often turned into deeper explorations.” Wang (a sophomore in business administration) initially struggled to replicate the hands-on, roleplaying exercises he once engaged in face-to-face; he eventually found online simulators and virtual breakout rooms that enabled a similar level of practical learning. Li (a sophomore in international relations) used informal WeChat groups to maintain robust peer collaboration: “We lost the coffeshop meetups, but at least we had a place online to keep our debates going.” (Qian Fei, Zhang, Wang, Li).
- **Learning Needs and Platform Stability:** Students consistently underscored the importance of user-friendly, reliable digital platforms. Li Dan (a sophomore in public administration) recounted her frequent battles with weak internet connectivity: “Whenever my stream cut out, I felt more anxious about missing vital content.” Chen Rui (a junior in international relations) similarly spoke of difficulties related to bandwidth but credited his institution’s platform for automatically adjusting video resolution: “That small feature prevented me from missing lectures even when my signal was weak.” Many learners also highlighted the value of curated digital libraries, prerecorded lectures, and interactive tools. Mei (a history major) frequently revisited videos “to dissect complex theories at my own pace,” while Xiao Lu (a junior in philosophy) praised real-time whiteboard sessions for preserving a sense of spontaneity: “It’s more than text chat; we got diagrams, bullet points, and everyone’s ideas on one screen.” However, participants often wanted closer links between course material and ongoing societal events, especially regarding the pandemic. Xiao Wu (a nursing major) explained that her parents’ work on the frontline made her “see how collective decisions really affect individual lives,” but she lamented the lack of sustained class discussion about real-world policy measures (Li Dan, Chen Rui, Many learners, Mei, Xiao Lu, Xiao Wu).
- **Cognition, Attitudes, and Relevance:** Although most learners viewed I&P education as pivotal for moral and civic development, they often considered the content overly abstract. Many students sought more tangible, contextually grounded lessons. Xiao Li commended teachers who used debates to stir critical thinking: “They make us question, not just listen.” Xiao Zhao (a senior in mechanical engineering) noticed a heightened sense of social responsibility during the pandemic and wished that classes “leveraged that moment of collective awareness more fully.” He felt that the crisis illustrated practical, immediate applications of civic engagement but observed that formal lessons “didn’t always tap into that deeper emotional resonance.” Calls for concrete tasks and roleplaying emerged repeatedly. Liu Wei (a junior in nursing) proposed having students enact simulated healthcare scenarios, while Sun (a finance major) wanted structured discussions on macroeconomic policy responses to the public health crisis. These

ideas underscore a widespread desire to see theoretical knowledge integrated into active, reality based learning experiences (Xiao Li, Many students, Xiao Zhao, Liu Wei, Sun).

- Maintaining Motivation and Adjusting Learning Status:** A notable challenge across student testimonies was sustaining motivation. The abrupt shift to online formats and limited face-to-face accountability risked triggering procrastination. Zhou (a freshman in sociology) admitted, “Without seeing classmates in person or having set check-ins, it was too easy to fall behind.” He addressed this by imposing a strict daily study schedule and joining a chat group that met every weekend to discuss assignments. Wu (a sophomore in engineering) relied on short-term goals and small rewards: “I’d promise myself something enjoyable—like an episode of my favorite show—if I finished two modules that night. It sounds basic, but it helped. These self-regulation strategies align with key tenets of Activity Theory (AT), which emphasizes the role of mediating tools (*e.g.*, schedules, peer groups) and division of labor (self-imposed structures) in shaping learning outcomes. Over time, students like Zhou and Wu not only mitigated procrastination but also developed transferable skills in time management and collaborative learning—factors linked to improved academic performance in subsequent courses. Furthermore, Critical Pedagogy (CP) underscores the importance of agency and empowerment in education. By actively designing their own motivational systems (*e.g.*, rewards, peer accountability), students exercised control over their learning processes, fostering a sense of ownership that correlates with deeper engagement and long-term retention of course material. “Such comments point to the role of self-regulation in online learning. While learners developed personal strategies to stay engaged, many advocated for institutional support. Tools such as reminder apps, digital calendars, or even instructor-led time management workshops could reduce isolation and institutionalize the principles of Social Interaction (SOI) by fostering structured collaboration between learners and faculty ( Zhou, Wu). The long-term implications of these findings reveal significant benefits for both learners and educators. For students, the cultivation of self-regulation strategies in online learning environments fosters resilience and adaptability—essential competencies for lifelong learning in an increasingly digital world. By developing personalized approaches to motivation and time management, learners enhance their immediate academic performance and acquire transferable skills that extend beyond the classroom. For educators, these insights suggest the value of formally integrating student-led strategies—such as peer accountability systems and goal-setting exercises—into course design. Such integration would reinforce the principles of Activity Theory, Social Interaction, and Critical Pedagogy and create more sustainable and inclusive frameworks for engagement. By bridging individual self-regulation techniques with institutional support, online learning environments can better address motivational challenges while empowering students as active participants in their educational journeys.
- Differences in Behavioral Intentions: Gender and Grade Level.** Although broad generalizations are unwarranted, some patterns emerged regarding gender preferences and academic seniority. Zheng (a male junior in economics) gravitated toward “intuitive, self-paced” videos, while Wang (a female sophomore majoring in political science) prized active online discussions: “Realtime exchanges spark deeper thinking because you’re sharing experiences directly.” Interviews did not confirm a strict male-female divide, but selective anecdotes indicated that one’s preferred mode of learning might reflect comfort with group dialogue versus independent exploration. Grade-level differences appeared more consistent. Freshmen needed additional training and orientation when encountering digital tools. Sophomores used the freedom of online formats to build autonomy but reported struggling with self-discipline. Juniors and seniors increasingly demand career-relevant content, seeing online I&P courses as an opportunity to bridge theoretical debates with professional aspirations. One junior, Xiao Zhao, emphasized wanting “real-world case studies” more than abstract lectures, calling for synergy between I&P content and workforce readiness (Zheng, Wang, Xiao Zhao).
- Student Feedback on Course Content, Platforms, and Self-Regulation:** Interviews, alongside prior research [49], underscore that many I&P courses have not fully leveraged interactive technology or updated content to reflect present-day realities. Some participants found the material “dry or outdated,” while others considered the “practice-oriented component” underdeveloped. To address these critiques, students recommended timely case studies, multimedia assignments, and the promotion of discussion boards, all of which could deepen engagement. From a theoretical perspective, self-regulation and self-efficacy [50], [51] remain

central to thriving in online contexts. Learners who had previously taken online courses—often in high school or through extracurricular programs—transitioned with fewer hurdles, displaying confidence in managing their workloads. By contrast, those lacking prior experience voiced anxiety early on and relied heavily on instructor guidance. Across the board, participants stressed the importance of proactive communication, timely feedback, and consistent check-ins to compensate for the missing immediacy of in-person instruction. The findings demonstrate how online ideological and political education can be enhanced through three key dimensions: pedagogical design, technological infrastructure, and learner support. To operationalize critical dialogue, educators should establish weekly reflection forums where students analyze course concepts through current events like pandemic policies, using discussion prompts aligned with critical pedagogy principles. Contemporary relevance can be maintained through a collaborative "living document" updated monthly with news articles for student annotation, encouraging active engagement with evolving social challenges. Structured roleplay simulations, where students debate policy issues from different stakeholder perspectives, have shown particular effectiveness when combined with peer assessment rubrics to strengthen social interaction. The technological aspect requires proactive solutions, including low-bandwidth alternatives (e.g., text-based discussions) and training for offline platform use, which is especially important for students in areas with unreliable internet access. Support strategies should be differentiated by academic level - first-year students typically require structured tech onboarding with video tutorials, while upper-level students engage better with applied projects partnering with community organizations. Across all levels, implementing peer accountability groups that meet biweekly with structured progress-tracking templates helps develop crucial self-regulation skills. These evidence-based strategies create an ecosystem that addresses the multifaceted challenges of online ideological and political education while leveraging its unique potential for interactive, engaged learning. Notably, successful implementation requires institutional support for faculty training and technological infrastructure, an important consideration for higher vocational colleges with limited resources. Future inquiries could explore the influence of these interventions on academic outcomes, student well-being, and longer-term civic engagement. Given that learners' dispositions and constraints continue to evolve—especially in times of global uncertainty—researchers and educators alike should remain vigilant in adapting pedagogical approaches. Where effectively implemented, interactive online environments can foster critical thinking, moral development, and a sense of social responsibility that underpin the core objectives of the Ideological and Political course.

### 3.1.2. Object

- **Course Content and Real-World Relevance:** In online ideological and political (I&P) courses, balancing theoretical rigor with practical application is essential for sustaining student engagement. Students consistently emphasized the importance of linking foundational concepts (e.g., Marxist principles) to contemporary social contexts. Li, a sophomore, praised the thorough explanations of core theories but found parts of the curriculum "outdated" and lacking integration with modern societal developments. Likewise, a freshman, Zhang appreciated modules addressing pertinent issues such as employment and social equity but sought additional depth, noting, "Adding case studies or exploring economic principles would help me better understand social phenomena." (Li, Zhang).
- **Students often highlighted the value of analyzing real-life examples:** A junior named Wang commended the course for weaving current events into lessons, explaining that these discussions sharpened his legal awareness and sense of civic responsibility: "Real-life integration boosts both my interest and the application of learned values." Xiao Zhang, another sophomore, similarly called for covering emerging topics (e.g., the rise of artificial intelligence) to demonstrate the real-world impact of theoretical constructions (Wang, Xiao Zhang).
- **Instructors who organized in-depth case studies and expert insights frequently earned positive feedback:** Xiao Li recalled how dissecting a genuine legal dispute "transformed an abstract theory into something tangible," instantly clarifying the main points. A deeper incorporation of contemporary events, social controversies, and evolving policy debates can foster critical thinking, encourage students to connect theory with practice and strengthen ethical and civic awareness. Students also advocated for ongoing curriculum revisions to keep pace with societal shifts. Xiao Zhao, for instance, urged educators to "adjust the course content in a timely

manner,” underscoring how even a few interactive segments—like online group discussions or quick updates on policy changes—can significantly enrich the learning experience (Xiao Li, Xiao Zhao).

### 3.1.3. Rules

Ensuring classroom discipline in online ideological and political courses at the university level is essential for maintaining teaching quality, student engagement, and a productive learning atmosphere. Instructors often establish and enforce rules regarding order, punctuality, respectful conduct, and assessment integrity. These regulations affect not only how students interact with course material but also how they relate to peers and faculty members. Students in this study consistently emphasized the importance of a clear, structured framework for attendance and in-class behavior. Xiao Li, a junior, described strict policies prohibiting chatting or playing games during online sessions, calling them vital for keeping everyone focused on course content. Establishing explicit behavioral expectations reinforces good study habits and encourages higher levels of engagement (Xiao Li).

- **Classroom Order, Tardiness, and Early Departure:** Several participants underscored the value of punctuality policies. Xiao Zhang, a sophomore, noted that students become more mindful of their schedules and attendance when instructors assign graded penalties for tardiness or early departures. Xiao Wang, a freshman, observed that well-maintained discipline helps him concentrate and participate more actively in class discussions and activities. Such regulations reduce disruptions and help students develop stronger time management skills—a critical requirement in largely self-directed online formats. Xiao Zhao, a sophomore, added that consistent enforcement of discipline lends a more serious and focused tone to the virtual classroom environment, promoting deeper learning and shared responsibility. The absence of face-to-face interaction often tempts students to multitask or engage in unrelated activities, prompting some, like Xiao Sun, to “put [the] phone aside” and concentrate solely on the course (Xiao Zhang, Xiao Wang, Xiao Su).
- **Respectful Interaction and Positive Learning Atmosphere:** Participants further highlighted the necessity of respectful dialogue. In online courses, students must refrain from making inappropriate remarks or engaging in personal attacks. Xiao Zhou noted, “I never make inappropriate comments or attack others. I listen carefully to the teacher’s explanations and respect everyone’s viewpoints.” A respectful climate fosters open communication, encourages collaborative learning and helps students feel more comfortable sharing insights (Xiao Zhou).

### 3.1.4. Division of labor

Division of labor plays a vital role in shaping collaboration outcomes and learning effectiveness within online I&P courses. When tasks are allocated according to individuals’ strengths and interests, the group becomes more efficient, experiences fewer redundant efforts, and enhances members’ sense of accountability. In one freshman course, a five-member team researching “The Thought on Socialism with Chinese Characteristics for a New Era” carefully divided responsibilities to optimize collective performance: a team leader coordinated member relationships and deadlines while maintaining productive discussions, a data collector gathered relevant information and conducted preliminary screening, a literature reviewer synthesized key findings from source materials, a PPT creator developed and presented the group’s slides, and a report writer compiled and finalized the group’s written work. This deliberate role allocation capitalized on each student’s abilities while promoting knowledge exchange and strengthening team cohesion and problem-solving skills. Students met their project objectives more effectively and deepened their learning through peer collaboration. As participants noted, well-considered task distribution helps each member focus on assigned duties and see how individual contributions fit into the broader academic purpose. Attention to assigning tasks, defining roles, and supporting interdependence can thus heighten learning motivation, build confidence, and foster meaningful engagement in ideological and political coursework.

### 3.1.5. Community

Peer relationships are essential to online ideological and political (I&P) courses, influencing students’ learning attitudes, performance, and overall personal development. In interviews, many participants underscored how friendships forged through online discussions and group activities contributed to a supportive academic climate, motivating them to engage more deeply with course content. A junior noted that connecting with classmates who shared similar interests “made me love this course even more,” underscoring the positive effect of peer support on sustained engagement.

Simultaneously, moderate competition also proved beneficial; students reported witnessing peers produce high-quality work, which prompted them to elevate their standards. Teachers reinforced this healthy rivalry by highlighting select exemplary assignments—particularly on topics like moral cultivation, thereby encouraging students to emulate and learn from one another's efforts. Beyond friendships and competitive dynamics, collaborative relationships were especially transformative. Students commonly cited group projects in which role delegation, mutual assistance, and collective problem-solving enhanced both their grasp of I&P content and their teamwork skills. One student recalled overcoming initial apprehension about an online presentation on "youth's social responsibility" by dividing roles among group members for data collection, scriptwriting, and video production. Challenges like verifying information accuracy or learning video editing software were approached collaboratively, ultimately reinforcing peer bonds. Such experiences highlight how carefully structured group tasks and teacher-led support mechanisms can cultivate a vibrant, inclusive online learning environment. By fostering friendship, productive competition, and effective collaboration, instructors can inspire students' creativity, tolerance, and deeper commitment to ideological and political coursework, an imperative for promoting holistic academic and personal growth (One Student).

#### 3.1.6. Mediating Tools

Technological tools play a crucial role in enhancing the effectiveness of online ideological and political (I&P) courses in vocational colleges, where students often benefit from practical, hands-on learning approaches. For instance, projectors and multimedia systems are particularly valuable in illustrating abstract political theories through real-world vocational scenarios—such as demonstrating how socialist core values apply to workplace ethics in manufacturing or service industries. These visual aids help students connect theoretical concepts to their future careers, making political education more relevant to their vocational training. Online learning platforms like vocational education-specific MOOCs (e.g., those offered by China's Ministry of Education for skilled trades) provide tailored I&P content that aligns with technical curricula, ensuring students see the practical implications of political education in their fields. Features such as industry-specific case studies and expert lectures from vocational role models enhance engagement and applicability. Interactive tools like Tencent Classroom and DingTalk are widely adopted in Chinese vocational colleges due to their compatibility with mobile learning—critical for students who split time between workshops and classrooms. These platforms support real-time discussions on how political policies (e.g., rural revitalization) affect vocational sectors like agriculture or e-commerce, fostering deeper contextual understanding. Polling and breakout rooms are especially effective for debating topics like labor rights or sustainable development within vocational contexts, making ideological education more participatory and grounded in students' professional futures.

Numerous junior students reported that their instructors deploy these technologies effectively, yielding significant improvements in teaching outcomes. For instance, teachers might use projectors to illustrate political theories through clear, dynamic presentations, while MOOC platforms help learners prepare by hosting course syllabi, introductory materials, and online quizzes. These systems enable instructors to monitor student progress in real-time, delivering prompt and individualized guidance. In addition, interactive features within Tencent Classroom facilitate spontaneous conversations, ensuring that students can pose questions or voice opinions at any moment and receive timely responses. Such real-time feedback mechanisms reassure learners that they are not isolated, prompting them to investigate course content more deeply (Numerous junior students).

Likewise, LanMo Cloud Class has proven beneficial for organizing group activities and voting sessions, allowing participants to exchange insights on core course themes. Students commonly reported that these collaborative forums expand their perspectives and cultivate both critical thinking and teamwork. One sophomore highlighted that immediate teacher feedback, made possible through the online question-and-answer feature, spurred him to delve further into lecture topics. A junior found that interacting with classmates from diverse cultural or professional backgrounds sharpened her tolerance of differing viewpoints and prompted her to reason through complex issues more rationally. These accounts suggest that integrating multimedia devices, online platforms, and interactive tools in I&P courses can significantly elevate students' motivation, deepen their conceptual understanding, and foster more dynamic learning communities (One sophomore, A junior).

#### 3.1.7. Power Relations

**Initial Sense of Power Imbalance.** At the beginning of the semester, many students felt that instructors wielded dominant authority in online I&P courses. Interviewees recounted strict time

limits for open discussions—often as brief as ten minutes—and instructors who controlled the pace of lecture slides. Xiao Wang noted, “Sometimes, I hadn’t even digested the previous slide before it was switched.” Xiao Li admitted hesitating to speak for fear of criticism or ridicule, and Xiao Zhang likened the interaction to “an invisible wall” that rendered engagement insincere. These constraints discouraged students from voicing their ideas and stifled the classroom atmosphere (Xiao Wang, Xiao Li, Xiao Zhang).

**Shift Toward Shared Power.** A turning point emerged during a midsemester unit on “Online Public Opinion and Civic Morality.” As Xiao Zhao recalled, the instructor explicitly invited students to share any viewpoint—“no right or wrong answers”—and extended the discussion to nearly an hour. Xiao Qian finally felt comfortable expressing ideas in depth, attributing her newfound confidence to the more generous time frame. Meanwhile, Xiao Sun appreciated that the teacher no longer prescribed “correct” answers but encouraged learners to formulate their own perspectives. This transformation, students agreed, reduced the sense of hierarchy and made them active participants in constructing course knowledge (Xiao Qian, Xiao Sun).

Based on these experiences, students suggested that online instructors allow ample time for open-ended dialogue, provide multiple ways to contribute (*e.g.*, speaking aloud, typing in chat forums), and avoid overdirecting discussions. Such flexibility fosters a sense of autonomy, while explicit openness to diverse views nurtures student engagement. By implementing these adaptive strategies, educators can shift away from strictly instructor-centered approaches, promoting critical thinking and civic awareness in line with the aims of I&P courses.

#### 3.1.8. Critical Consciousness

Critical awareness in I&P courses depends on students’ willingness to challenge course materials, teaching methods, and even the broader curriculum. This reflective process can deepen engagement and foster complex thinking, especially when addressing political or ideological themes. One sophomore recalled a discussion on “patriotism” in which the instructor juxtaposed varied historical interpretations before asking whether patriotism should be redefined amid economic globalization. Students then debated how historical precedents intersect with contemporary multinational realities, sparking consideration of whether patriotism remains static or evolved alongside social and economic shifts. This layered inquiry encouraged them to explore cultural, historical, and financial perspectives rather than uncritically accepting established viewpoints (One sophomore).

Not all learning environments, however, offer robust opportunities for critique. A junior lamented that certain course materials felt outdated and disconnected from real-world developments, while teacher-dominated lectures further curbed interaction. Technological hurdles also hindered some learners from sharing their insights. When the student voiced these complaints on social media, classmates joined the conversation, collectively urging instructors to modernize content, diversify teaching strategies, and enhance technical support. Such discussions highlight how critical reflection can transcend the virtual classroom, propelling broader reforms in course structure.

Several strategies can strengthen this questioning culture. Regularly updating course materials to reflect current events helps students see the applicability of abstract theories. Through debates, roleplaying, or simulation, interactive pedagogy shifts students from passive observers to active problem solvers. Open forums and brief feedback surveys let them propose course improvements, and stable online infrastructures guard against morale-sapping technical glitches. Collectively, these measures reinforce constructive questioning, promote deeper learning, and help students develop the analytical and civic competencies that I&P courses aim to cultivate.

#### 3.1.9. Empowerment

Contemporary online platforms have greatly expanded students’ autonomy in I&P courses, allowing them to tailor learning experiences to their schedules and interests. One sophomore, for instance, spoke of balancing coursework with part-time employment and extracurricular activities—an arrangement that helped him integrate materials of personal relevance and deepen his engagement. By controlling both the pacing and the scope of his studies, he found himself rewatching or skipping content as needed and devoting extra attention to complex sections before exams. This sense of choice fostered intrinsic motivation and led to a more thorough exploration of issues (One Sophomore).

Yet the effectiveness of such autonomy hinges on the quality of available resources. Outdated or irrelevant materials reduced this student’s enthusiasm, calling into question the course’s overall value. Even a well-intentioned recommendation system lost credibility when it repeatedly offered

oversimplified suggestions. Recognizing that self-directed learning alone cannot sustain interest, he argued for regularly updated content, the option to differentiate between foundational and advanced materials and a robust feedback mechanism. These measures would keep the learning environment current, challenging, and attuned to students' evolving skills.

The students also emphasized the utility of communal interaction—like peer reviews, live Q&A sessions, and group discussions— as a balance to self-paced study. Such collaborative spaces nurture the collective dimension of ideological and political learning, which often hinges on exchanging diverse perspectives. Ultimately, while autonomy and choice invigorate student ownership and deepen intellectual engagement, these benefits depend on educators and platform designers providing relevant content, precise guidance, and reliable support systems.

### 3.2. Themes 2: Student Engagement

In examining how students engaged in online ideological and political courses during the pandemic, researchers identified several domains that capture students' behaviors, challenges, and successes. Through interview data coding and analysis, three broad categories of engagement emerged: student interaction with course content, student-teacher interaction, and student-student interaction. Within each category, specific subdomains shed light on the nuanced ways in which learners navigate remote learning.

#### 3.2.1. Teacher-Student Interaction

Interviews and observations indicate that multiple scenarios foster interaction between students and teachers in online learning environments. Students typically initiate contact to ask questions or resolve doubts through platforms like ClassIn, online meetings, or email. Such interactions address various issues, including course scheduling misunderstandings, technical challenges, peer or teacher conflicts, deadline extensions, and internship-related matters. Questions surrounding internship experiences surfaced as a central theme in interviews, reflecting the importance of practical fieldwork for junior college students in developing into qualified builders of socialism (junior college students). When reaching out to instructors, students often follow a series of preparatory steps. Some first explore resources such as course materials or university systems to confirm the necessity of directly consulting their teachers. A senior student admitted that he only actively seeks guidance once his goals and questions are clear, clarifying that he locates the instructor's contact information and confirms the best method of communication before composing an email or scheduling an online meeting (A senior student).

#### 3.2.2. Student-to-Student Interaction

Students in this study offered detailed accounts of how they collaborate with their peers to complete various tasks, discussing both the quality of their interactions and the barriers they face. As opportunities for face-to-face meetings with instructors have declined, students increasingly rely on their peers for mutual support in academics and beyond. Rather than becoming isolated, participants expressed enthusiasm for connecting with classmates, identifying shared interests, and engaging through online platforms to learn about diverse perspectives.

A sophomore explained why she values peer interaction: "Interaction is really good, especially with people I do not usually meet. It helps me build some connection with them. "Many students noted that being placed in random groups to complete tasks fosters closer relationships and a deeper understanding of others. A freshman similarly described how hearing different viewpoints expands her thinking and helps her become more aware of others' teaching philosophies and lesson plans (A sophomore, A freshman).

#### 3.2.3. Student-Content Interaction

The qualitative data reveal that most students have developed effective self-management strategies, enabling them to plan and organize their academic responsibilities and daily lives with exceptional precision. Participants in the study demonstrated a strong capacity for recording, tracking, and managing their tasks, deadlines, and schedules in a highly systematic manner. Despite the challenges posed by the COVID-19 pandemic and the transition to new online learning formats for ideological and political courses, many students reported successfully maintaining a balance between academic and personal demands without feeling overwhelmed. This ability underscores their adeptness in task management and time planning, enhancing their academic performance and fostering personal growth.

Students employed three primary systems to manage their learning activities: physical schedule books and digital planning tools. Each system reflects distinct preferences and approaches toward time and task management. **Physical Planning Tools.** A significant portion of students preferred traditional methods, such as scheduling books or calendars, to document and organize their tasks. These students emphasized the cognitive benefits of physically writing down their plans, which they believed enhanced memory retention and facilitated task completion. For example, a second-year student shared, “I write down all my to-do items because it helps me remember them better. Once written, they are clearer in my mind.” Others adopted innovative methods, such as using whiteboard calendars paired with weekly journals to track tasks meticulously. Upperclassmen frequently incorporated color-coded systems to differentiate between task types, demonstrating a high level of organization. A senior student explained, “I use different colors for different tasks and update my written plans immediately when schedules change. Writing things down helps me remember better—it is like a memory tool for me.” (a second-year student).

**Digital Planning Tools.** Digital tools were another widely favored system, enabling students to enhance their time management capabilities using learning management systems (LMS) like ClassIn and smartphone and computer applications. Many students reported that ClassIn’s automatic task planning features were particularly effective, offering reminders for upcoming deadlines and integrating course schedules for seamless organization. A first-year student noted, “ClassIn’s learning plan feature, combined with course syllabi, helps me organize homework and tasks efficiently.” (A first-year student).

### 3.3 Limitations

This study has several limitations. First, the sample size was relatively small and limited to students from [Specify the context, e.g., one region] in China, which may limit the generalizability of the findings. Second, the study relied solely on self-reported data from interviews, which may be subject to social desirability bias. Third, the study focused on student perspectives and did not include the perspectives of teachers or administrators, providing an incomplete picture of the online learning experience. These limitations suggest that the findings should be interpreted with caution and highlight the need for further research with larger and more diverse samples, mixed methods approaches, and the inclusion of multiple stakeholders. Specifically, the limited sample size may affect the transferability of the findings to other contexts, while the reliance on self-reported data might introduce potential biases, influencing the validity of the conclusions drawn about student engagement. Future research could address these limitations by employing longitudinal studies, incorporating observational data, and exploring the impact of institutional support on online I&P education.

## 4. Conclusion

This qualitative study investigated student engagement in online Ideological and Political (I&P) courses at a Chinese higher vocational college during the COVID-19 pandemic through the theoretical frameworks of Activity Theory (AT), Social Interaction (SOI), and Critical Pedagogy (CP). The findings reveal that effective online I&P learning requires robust infrastructure (including clear institutional rules, well-designed course materials, and stable technological platforms) coupled with active student engagement strategies (such as peer interactions and critical reflection). Students demonstrated remarkable adaptability in developing self-regulation techniques to overcome challenges like technological barriers and motivation maintenance, highlighting the dynamic interplay between institutional structures and individual agency. However, the study acknowledges several limitations: its single-institution focus may affect generalizability, reliance on self-reported data without behavioral analytics presents methodological constraints, and the short-term nature of the research precludes assessment of long-term ideological cultivation outcomes. Moving forward, we recommend a comprehensive research agenda that expands comparative studies across vocational institutions, incorporates learning analytics to track engagement patterns, develops vocationally-integrated I&P teaching models, implements digital literacy training programs, and establishes longitudinal evaluation mechanisms. These advancements will enable educators to better support vocational students' ideological-political development while addressing the unique challenges of online learning environments. Ultimately, this study contributes to the ongoing scholarly conversation about optimizing ideological education in China's rapidly evolving vocational education system, particularly in the context of increasing digital transformation in higher education.

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