

Innovative Measures to Foster Autonomous English Learning in the Digital Age: Perspectives from Chinese College Educators

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Abstract: *The rapid development of digital technologies has reshaped the way English is taught and learned in higher education, offering new opportunities for promoting learner autonomy. This study explores how college educators in China perceive, implement, and evaluate strategies to promote autonomous English learning in a digital context. Using a qualitative design, semi-structured interviews were conducted with presidents, deans, and teachers across several universities. Thematic analysis revealed four primary dimensions: (1) the use of intelligent tools and online resources to enhance network-based convenience, (2) classroom strategies that cultivate autonomy through interactive, goal-oriented, and reflective practices, (3) extracurricular initiatives that extend learning beyond the classroom, and (4) supportive curriculum and teaching environments that encourage independent learning. The findings highlight how technology-mediated approaches, such as intelligent apps, flipped classrooms, and online collaboration, facilitate self-directed engagement and motivation. The study concludes with recommendations for institutional support, pedagogical innovation, and the measurement of learner autonomy in digital contexts.*

Keywords: learner autonomy, English learning, digital age, higher education, teacher perspectives

1. Introduction

The emergence of digital learning technologies has fundamentally changed English language education. In China, universities increasingly emphasize learner autonomy as an essential competence for lifelong learning and employability, particularly within the framework of national educational reforms and the widespread integration of information and communication technologies in higher education. The integration of digital tools such as mobile apps, online courses, and virtual learning platforms has expanded opportunities for students to engage in self-directed learning anytime and anywhere (Benson, 2013). These tools not only facilitate access to diverse linguistic inputs and interactive practice but also encourage learners to take greater control over the pace, content, and trajectory of their language acquisition. This transformation has brought a renewed focus on how educators conceptualize and measure the promotion of autonomy in technologically mediated contexts.

Learner autonomy, as originally defined by Holec (1979), refers to “the ability to take charge of one's own learning.” In the digital age, autonomy extends beyond the classroom and involves students' ability to manage learning resources, monitor progress, and evaluate

outcomes through online tools and collaborative networks (Reinders, 2010; Tassinari, 2012). Furthermore, it encompasses meta-cognitive strategies such as goal-setting, reflection, and adaptive resource selection within open and dynamic digital learning environments. However, while many studies have examined learners' perceptions of autonomy, fewer have explored teachers' views on the specific measurements and mechanisms used to foster it within digital environments. This gap is especially relevant in the Chinese context, where pedagogical traditions and rapid technological adoption create unique challenges and opportunities for fostering autonomy. Understanding instructors' perspectives is crucial for developing effective pedagogical strategies and institutional policies that genuinely support autonomous learning in a ubiquitous digital ecosystem.

This study aims to bridge that gap by examining how Chinese college educators perceive and promote autonomous English learning through the application of digital technologies. Drawing on in-depth qualitative interview data gathered from a diverse range of institutional stakeholders, it identifies practical, context-sensitive strategies implemented by presidents, deans, and front-line classroom teachers. These approaches are designed to effectively measure and systematically enhance learner autonomy both within structured classroom settings and in self-directed learning environments outside traditional instruction. The research highlights how digital tools, from learning management systems and mobile applications to adaptive software and social media platforms, are being leveraged to create supportive, responsive, and personalized English learning experiences that foster greater student independence and meta-cognitive awareness.

2. Literature Review

2.1 Learner Autonomy and Teacher Beliefs

Teacher beliefs play a fundamental and multifaceted role in shaping the development of learner autonomy, as emphasized in the research of scholars such as Zou (2011) and Li (2023). Educators who genuinely value and endorse the principle of learner autonomy are more inclined to intentionally design learning experiences that empower students to take initiative, set their own educational goals, make meaningful choices regarding content and methods, and engage in regular reflection on their progress, as noted by Little (2007). In China's English as a Foreign Language (EFL) context, the attitudes and convictions of teachers often serve as the decisive factor that either fosters or inhibits the growth of learner autonomy, particularly within educational systems that have traditionally been characterized by teacher-centered instructional approaches, as observed by Chen (2023). Furthermore, empirical studies indicate that teachers who perceive autonomy as complementary to, rather than in conflict with, academic achievement and success are significantly more likely to adopt and integrate learner-centered pedagogical strategies, as well as make effective use of digital tools and resources to support autonomous learning behaviors, as demonstrated in the work of Tran (2020).

2.2 Technology and Autonomy

The intersection between technology and autonomy has been widely documented (Reinders & Benson, 2017). Intelligent applications, online learning platforms, and social media afford learners greater control over pace, time, and content. These tools not only support personalized learning pathways but also encourage the development of meta-cognitive and self-regulatory skills, which are essential for fostering learner independence. Serfaty & Serrano (2020) found that digital environments facilitate "independent but connected" learning, where students balance self-management with collaboration. This dynamic allows learners to exercise agency in their educational processes while remaining engaged within a community of peers, thereby

enhancing both motivation and accountability. In China, blended learning reforms and mobile technologies have enabled teachers to extend learning beyond classroom boundaries (Zhang et al., 2021). Through flipped classrooms and cloud-based learning management systems, instructors can provide continuous access to resources and foster interactive, student-centered experiences. Nevertheless, successful implementation requires both technological infrastructure and pedagogical readiness (Yang & Wang, 2020). Without adequate support for teacher training and a coherent institutional strategy, technology integration may fail to realize its potential in promoting meaningful autonomy.

2.3 Measurement of Autonomy

The measurement of learner autonomy involves both behavioral and attitudinal indicators, such as goal-setting, self-assessment, and independent problem-solving (Tassinari, 2012). These indicators help capture not only the observable actions of learners but also their underlying motivations and perceptions of control over the learning process. Researchers have emphasized the need for contextualized models that align with institutional practices and digital learning conditions (Benson, 2011). Such models acknowledge that autonomy is not developed in isolation but is influenced by specific educational environments, pedagogical approaches, and technological tools. This study contributes to that discourse by identifying teacher-reported strategies and contextual factors that serve as practical measures of promoting autonomy in the digital era. By integrating insights from educators working within diverse digital learning settings, the research aims to bridge theoretical frameworks and classroom realities, offering actionable guidance for fostering autonomy in contemporary educational contexts.

3. Methodology

In a qualitative research, Donnelly (2003) holds the sample sizes are usually small, but they should achieve the purpose of the study and provide sufficient opportunity to explore insights into the research problem. Etikan (2016) recommends sampling less than ten for qualitative research. This qualitative study employed semi-structured interviews with nine Chinese college educators, including three presidents (P), three deans (D), and three teachers (T).

Participants represented a range of public universities with established English programs in Fujian province. This study was carried out in Fujian Province, situated on the southeastern coast of China. The province was chosen as the research site because Fujian has a diverse higher education system, with a combination of vocational colleges, comprehensive universities, and specialized institutions, making it an ideal setting to explore innovative measures to foster autonomous English learning in the digital age.

Each interview lasted 30 minutes and explored perceptions of learner autonomy, classroom and extracurricular practices, and digital facilitation. All interviews were transcribed and coded following Braun and Clarke's (2006) six-phase thematic analysis framework. Through open coding, categories and themes were developed that captured shared beliefs and experiences. Four key themes emerged from the analysis: (1) network convenience, (2) in-class promotion, (3) extracurricular promotion, and (4) curriculum and environment. Representative excerpts are presented in Tables 1-4.

4. Findings and Discussion

4.1 Network Convenience and Learner Autonomy

Interview data revealed that educators widely view technological convenience as a key catalyst for promoting learner autonomy. Participants consistently highlighted three major enablers: intelligent learning tools, flexibility in time and place, and highly engaging online interactive content. Teachers reported that intelligent learning applications such as Youdao or iSpeak significantly facilitate self-monitoring and reflection by providing immediate feedback, personalized learning pathways, and progress tracking features. The flexibility to learn anytime and anywhere, coupled with rich, multimedia learning resources, fosters greater student investment and supports the development of independent learning habits (Nguyen, 2014). These findings align closely with Tassinari's (2012) model of dynamic autonomy, which emphasizes the learner's capacity to intentionally manage available resources, make informed choices, and continuously self-regulate through digital and online means.

Table 1: Network Convenience Can Be Used to Promote Learner Autonomy

Theme and frequency	Excerpts from the interviews
Intelligent Tools and Apps (N=3)	"Recommend students to use some intelligent English learning software." (D2) "Various teaching apps." (D1) "The development of various learning apps and artificial intelligence has a very good promoting effect on autonomous learning." (P3)
Flexible Time and Place (N=2)	"You can use fragmented time to learn knowledge." (P1) "The Internet makes learning time and place unlimited." (T3)
Engaging Multimedia Content (N=3)	"Teachers use the Internet to share learning resources." (D3) "Can recommend relevant good learning websites for students to study." (T1) "Using vivid and interesting videos or materials to replace boring, pure text materials." (T2)

*P=President; D=Dean; T=Teacher

4.2 Promoting Learner Autonomy in Class

Educators employ interactive, goal-oriented, and reflective practices to promote autonomy within classroom instruction. These strategies are designed to cultivate a learning environment where students take greater ownership of their educational journey, thereby encouraging self-direction and reflective learning. Through carefully structured interactive activities, such as peer discussions, collaborative projects, and problem-based tasks, students are prompted to actively construct knowledge rather than passively receive it. Similarly, flipped classroom designs reposition the teacher as a facilitator by moving direct instruction outside of class time, which in turn shifts responsibility from teacher to student and fosters deeper cognitive engagement (Reinders, 2010).

Goal setting and self-questioning were consistently described as core measurement indicators of autonomy, as they empower learners to define their objectives, monitor progress, and adjust strategies accordingly. This approach aligns closely with Zimmerman's (2008) self-regulation framework, which emphasizes the cyclical processes of planning, performance monitoring, and self-reflection. By integrating these meta-cognitive strategies, educators help students develop not only academic skills but also the confidence and capability to direct their own learning beyond the classroom.

Table 2: Promote Learner Autonomy in Class

Theme and frequency	Excerpts from the interviews
Interactive Activities (N=3)	“Classroom interaction.” (D1) “Design group interactive activities.” (D3) “Cultivate the ability of independent learning through some reward mechanisms, group activities.” (T2)
Goal Setting (N=2)	“To cultivate students' self-planning ability.” (D2) “Set goals and guide students to work towards them.” (P3)
Flipped Learning (N=2)	“Arrange pre-study tasks in advance and report and present in class.” (D3) “I will conduct a flipped classroom” (T1)
Self-Questioning (N=2)	“Students ask questions themselves.” (P1) “Encourage students to think by asking questions.” (T3)

*P=President; D=Dean; T=Teacher

4.3 Promoting Learner Autonomy Outside the Classroom

Teachers also integrate a variety of digital tools and structured extracurricular activities to promote autonomous learning beyond class time. For instance, platforms such as online learning management systems, language apps, and interactive software enable students to access materials, practice skills, and receive feedback at their own pace. Teachers reported that online assignments and digital coursework create continuity between classroom and independent learning, allowing students to revisit content and reinforce understanding outside school hours.

Extracurricular activities, such as speech contests, debate teams, learning clubs, drama performances, and student-led multimedia projects, extend opportunities for authentic language use and help sustain intrinsic motivation. Such activities encourage learners to take initiative, collaborate with peers, and apply knowledge in real-world contexts, thereby supporting the development of learner agency and self-regulation.

These findings echo Benson's (2011) argument that autonomy flourishes when learners engage in socially meaningful tasks that mirror genuine communication and personal interests. Further support comes from studies indicating that technology-enhanced environments and purposeful extracurricular engagement foster a sense of ownership and responsibility in the learning process (Duterte, 2024).

Table 3: Promote Learner Autonomy Out of Class and as Extra-Curricular Activity

Theme and frequency	Excerpts from the interviews
Assignment of Tasks / Homework (N=7)	“Arrange learning tasks in advance through the Internet.” (D1) “Assign homework.” (D3) “By assigning tasks.” (P1) “Assign homework.” (T1) “after-class tasks.” (T2) “Assign learning tasks.” (T3) “Assign open coursework.” (P2)
Extracurricular Activities (N=3)	“Establish an English learning club.” (D2) “Encourage participation in English speech contests, adding English subtitles to short videos, etc.” (P3)

*P=President; D=Dean; T=Teacher.

4.4 Curriculum and Teaching Environment

Participants unanimously agreed that institutional curriculum design and digital learning environments strongly encourage learner autonomy.

This perspective reinforces prior research suggesting that flexible curricula, diverse elective courses, and well-structured online modules provide essential structural opportunities for fostering autonomy (Tran, 2020). Teachers emphasized that the institutional environment, particularly when integrated with rich digital resources such as open educational materials, interactive platforms, and cloud-based collaborative tools, becomes a key indicator of how effectively learner autonomy is supported. Furthermore, they highlighted the importance of curriculum flexibility in allowing learners to make meaningful choices regarding their learning paths, pacing, and assessment methods. The combination of pedagogically sound course designs and technologically enhanced environments appears to create conditions where students can increasingly take ownership of their learning, develop self-regulation skills, and engage more deeply with content. Such environments not only accommodate diverse learning preferences but also promote a culture of independence and responsibility, which are central to the development of autonomous learners.

Table 4: The Curriculum and Teaching Environment Encourage Learner Autonomy

Theme and frequency	Excerpts from the interview
Strong Encouragement from Curriculum (N=6)	“From every perspective, the curriculum and teaching environment encourage students to learn independently.” (D1) “The curriculum and teaching environment give students more choices.” (P2) “A good learning environment promotes autonomy.” (P3) “In the current environment, the curriculum and teaching environment encourage college students to learn independently.” (T1) “Students are able to arrange time for independent learning.” (T2) “relevant online courses and resources make self-study more convenient.” (T3)

*P=President; D=Dean; T=Teacher.

5. Implications

Findings from recent studies indicate that measuring the promotion of learner autonomy necessitates a comprehensive, multi-dimensional evaluation approach to capture its complexity. Based on teacher insights and empirical evidence, four key indicators can effectively guide institutional assessment: Technological Engagement: This involves monitoring the frequency and quality of students' interactions with digital tools and online learning platforms, such as usage analytics, participation in virtual discussions, and completion of e-learning modules. Goal and Reflection Mechanisms: Evidence of student-led planning, monitoring, and evaluation, exemplified through tools like learning diaries, self-set objectives, and regular progress reviews that foster meta-cognitive skills. Participation Beyond Class: Involvement in extracurricular English activities or online communities, including language clubs, webinars, social media groups, or peer-led study sessions that extend learning outside formal settings. Environmental Support: Institutional policies, curriculum flexibility, and accessibility of resources, such as provision of adaptive learning technologies, open educational resources, and supportive infrastructures that enable autonomous learning practices. These measurement dimensions align closely with Tassinari's (2012) dynamic model of learner autonomy, which emphasizes the interplay between cognitive, meta-cognitive, and affective components, and they reflect both behavioral manifestations and attitudinal shifts toward self-directed learning. Teachers play a critical facilitative role by designing blended learning environments that strategically balance structure and freedom, incorporating guided autonomy through scaffolded tasks and choice-based activities (Reinders & Benson, 2017). Institutions can further strengthen autonomy by integrating systematic self-assessment

frameworks, digital portfolios for tracking progress, and professional development programs that empower educators to implement these strategies effectively.

6. Conclusion

This study underscores the pivotal role of educators and technology in measuring and promoting autonomous English learning in the digital age. Teachers' beliefs, such as their views on student agency and the value of self-directed learning, along with their classroom practices and digital engagement strategies, collectively shape how autonomy develops. The integration of intelligent apps, flipped classrooms, online tasks, and supportive curricula creates a dynamic, learner-centered ecosystem where autonomy can be systematically observed, nurtured, and evaluated.

Despite its valuable insights, this study has several limitations. First, the research relied primarily on qualitative interview data from a limited number of college educators in Fujian province, which may not fully represent the diversity of teaching contexts across different regions and institution types within China. Second, as the participants were self-selected and their responses self-reported, the findings may reflect subjective perceptions or social desirability bias rather than objectively measured instructional practices. Third, the study focused mainly on educators' perspectives, omitting students' voices and quantitative data regarding learning outcomes and actual autonomy gains. These omissions limit the generalizability and robustness of the conclusions. Future studies could adopt a mixed-methods approach, incorporating both qualitative insights and quantitative metrics, or employ a longitudinal design to trace developmental trends. Triangulating data from teachers and learners would significantly enhance the reliability and scope of the findings.

Future research could extend this study by combining qualitative findings with quantitative measures of autonomy, such as through validated scales or behavioural indicators, and exploring how emerging technologies like artificial intelligence, big data analytics, and adaptive feedback systems can further enhance English learning independence. Comparative studies across institutions of varying resources and across different regional educational policies could also provide deeper insight into how contextual factors influence the effectiveness of digital strategies in fostering learner autonomy. Such investigations would help formulate more nuanced and adaptable models for supporting autonomy in diverse learning environments.

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Conflict of Interest Statement

The authors declare that there is no conflict of interest regarding the publication of this study.

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