THE INFLUENCING FACTORS AND MECHANISMS OF SATISFACTION AMONG HANDCRAFT LEARNERS IN SHANXI UNIVERSITIES UNDER THE CONTEXT OF DIGITAL MEDIA

Haiyan Zhao[1], Wasin Phromphithakkul[2]
Program of Management Philosophy, Shinawatra University[1-2]
China,[1] Thailand[2]

Email: phromphithakkulwasin@gmail.com[1-2]

Abstract

This study investigates the factors influencing university students' satisfaction in digital media-based handicraft learning in Shanxi Province, China. The primary objectives are to identify key determinants of satisfaction such as learner expectations, personalized learning environments, previous learning experiences, learner initiative, perceived quality, and perceived value; to examine the mediating effects of perceived quality and perceived value; and to develop a satisfaction model integrating the American Customer Satisfaction Index (ACSI), the Technology Acceptance Model (TAM), and Experiential Learning Theory (ELT). A mixed-methods research design was adopted, employing both quantitative and qualitative approaches. Data were collected through structured questionnaires with 428 valid responses and in-depth interviews with relevant participants. Structural Equation Modeling (SEM) was used to test the model and analyze the direct and indirect relationships among variables. **The results reveal that** learner expectations, personalized learning environments, and previous

experiences directly impact satisfaction, while perceived quality and value mediate these effects. Learner initiative, however, does not have a direct effect but is influenced by other variables. The study concludes that satisfaction in digital handicraft learning is multifactorial and shaped by both technical and experiential dimensions. Based on the findings, practical recommendations are proposed for optimizing digital learning platforms, enhancing personalized learning strategies, and integrating cultural education with digital innovation. Future research is encouraged to explore longitudinal changes and the application of artificial intelligence in personalized digital handicraft education.

Keywords: Digital Media; Learner Satisfaction; Personalized Learning; Perceived Quality; Experiential Learning Theory

Introduction

The revival of traditional handicraft education in China is gaining momentum through the strategic integration of digital media technologies. Over the past decade, national and provincial policies have strongly emphasized the revitalization of intangible cultural heritage and the modernization of traditional crafts. The "Plan for the Revitalization of Traditional China's Crafts (2017–2025)" and the "14th Five-Year Plan for Digital Economy Development" exemplify the Chinese government's commitment to leveraging digital transformation to preserve and expand traditional skills. In Shanxi Province, which boasts a rich cultural heritage, initiatives such as integrating handicraft training into university curricula and promoting e-commerce-based promotion of crafts have encouraged the dissemination of artisanal skills through digital platforms (GOV.CN, 2023). Social media, virtual learning environments, and AI-assisted tools are now being used to enrich student learning and engagement in craft-related disciplines. Consequently, there is a growing need to understand how these digital innovations influence student satisfaction and learning outcomes in higher education institutions.

Despite the increased adoption of digital tools, the pedagogical effectiveness of digital media in craft education remains inadequately explored. While traditional mentorship models emphasize tactile learning and real-time feedback, digital platforms often struggle to replicate such immersive experiences. Learners' satisfaction is shaped by various factors, including their expectations, previous experiences, personal initiative, and the usability of digital platforms. Moreover, empirical evidence on how perceived quality and value mediate these relationships remains scarce. Previous studies have addressed satisfaction within general e-learning contexts, but fewer have focused on digital craft learning, particularly within the Chinese context where cultural heritage plays a critical role in educational content and learner motivation (Kaplan & Haenlein, 2010; Dwivedi et al., 2021). This research aims to fill this gap by applying a comprehensive theoretical framework that incorporates the American Customer Satisfaction Index (ACSI), Technology Acceptance Model (TAM), and Experiential Learning Theory (ELT) to evaluate the mechanisms influencing satisfaction among university students engaged in digital handicraft learning in Shanxi

Besides, the growing popularity of digital platforms such as Douyin, Bilibili, and Xiaohongshu among contemporary college students provides both opportunities and challenges for educators. These students, being digital natives, expect high interactivity, personalized content, and immediate feedback, which traditional classroom environments may not provide. The use of artificial intelligence, virtual reality, and multimedia storytelling allows for the simulation of complex handicraft techniques while providing data-driven insights into learning behaviors.

Research Objectives

1. To identify and critically analyze the primary factors that influence student academic success in higher education institutions in Shanxi Province, including internal student attributes, institutional support mechanisms, and academic capabilities.

The Community Enterprise of the Banana Conservation Center in Suphanburi
No.8/3 Suphanburi Railway Station Road, Ruoa Yai Subdistrict, Muang District, Suphanburi Province 72000

Vol. 5 No 3 September-December 2025 pp.573-589

2. To develop a comprehensive causal model using Structural Equation Modeling (SEM) that examines the direct and indirect relationships among motivation, self-advocacy skills, access to appropriate resources, academic abilities, and overall student success within the context of Shanxi's higher education institutions.

3. To provide empirically grounded and practical recommendations for educational institutions and policymakers by transforming the results of the causal model into applicable guidelines aimed at improving student success outcomes across vocational institutions in the province.

Literature Reviews

Digital media has evolved from simple information dissemination tools into complex ecosystems facilitating interaction, user-generated content, and intelligent recommendations. Early frameworks such as Castells' (1996) Network Society Theory emphasized the rise of information as a core productive force shaping global interconnectedness. Lievrouw and Livingstone (2006) defined digital media by its interactivity, hypertextual structure, and multimodal nature, distinguishing it from traditional formats. This initial phase of digital media development laid a theoretical foundation for understanding how digitalization influences society, culture, and education. The advent of Web 2.0 marked a paradigm shift, bringing about platforms that enabled users to co-create and share content. Jenkins (2006) introduced the concept of participatory culture, noting that users are no longer passive recipients but active contributors in transmedia storytelling. The Honeycomb Model by Kietzmann et al. (2011) further delineated the functions of social media—identity, sharing, relationships, which later informed strategies in digital education and branding. More recently, research has focused on immersive experiences and artificial intelligence (AI). Dwivedi et al. (2021) and Slater and Sanchez-Vives (2016) highlighted the role of machine learning and VR in enhancing user experiences, raising concerns about filter bubbles and algorithmic bias.

Handicraft Learning particularly in the context of digital media, has taken on new significance due to its dual cultural and educational roles. It preserves intangible cultural heritage while adapting to digital dissemination platforms such as video tutorials, live-streaming, and interactive courses. The Chinese government's "14th Five-Year Plan" and the "Action Plan for Digital Transformation of Vocational Education (2023–2025)" stress the importance of integrating digital tools into traditional skill-based education. The integration of VR and AR technology into handicraft teaching enables learners to experience cultural practices in immersive ways (Zhou, 2021; Guha, Mandal, & Kujur, 2021). Online platforms allow learners to engage in asynchronous, learner-paced activities that align with their interests and capabilities. Studies such as those by Li (2022) on digital brokerage platforms for cultural heritage highlight how modern digital ecosystems enhance both the preservation and innovation of handicrafts.

American Customer Satisfaction Index (ACSI): The American Customer Satisfaction Index (ACSI) provides a robust theoretical foundation for evaluating learner satisfaction in digital environments. Originally developed by Fornell et al. (1996) and Anderson et al. (1994), the ACSI uses structural equation modeling (SEM) to quantify relationships among key variables—customer expectations, perceived quality, perceived value, satisfaction, complaints, and loyalty. In the context of education, these constructs have been adapted to measure learner satisfaction in digital platforms. Perceived quality, such as the effectiveness of course content and platform usability, directly influences perceived value, which in turn impacts satisfaction. Sun et al. (2008) and Wu et al. (2010) extended ACSI by integrating it with the Technology Acceptance Model (TAM), showing that perceived ease of use and usefulness affect user expectations and satisfaction.

Learning theories play a pivotal role in shaping the instructional design of digital media-based handicraft education. Experiential Learning Theory (ELT), introduced by David Kolb, forms the core theoretical underpinning of this study. ELT posits that effective learning occurs through a cyclical process involving four

The Community Enterprise of the Banana Conservation Center in Suphanburi
No.8/3 Suphanburi Railway Station Road, Ruoa Yai Subdistrict, Muang District, Suphanburi Province 72000

Vol. 5 No 3 September-December 2025 pp.573-589

stages—concrete experience, reflective observation, abstract conceptualization, and active experimentation (Kolb & Kolb, 2017). This model aligns particularly well with digital handicraft learning, where learners engage in hands-on projects, reflect through peer feedback or Q\&A forums, develop conceptual frameworks, and apply them in new tasks. Kolb (2014) emphasized the role of past experiences in shaping learning behavior, a point echoed by Xu et al. (2014) and Chen & Liu (2011), who argued that learning environments should accommodate learners' prior knowledge to foster deeper engagement. The personalized learning environment (PLEN) model proposed by Dabbagh and Kitsantas (2012) advocates for learning systems that adapt to individual preferences.

Related research: Previous empirical studies have validated various theoretical models in the context of digital learning. Su (2012) and Su, Xie, & Xiao (2009) conducted structural equation modeling on distance education learners in China, identifying key predictors of satisfaction such as perceived usefulness, system quality, and instructional support. Liu (2022) explored how achievement goal orientation influences learner satisfaction through academic self-efficacy and engagement. Wang (2019) showed that teacher-student interaction plays a significant role in online learning satisfaction, especially in asynchronous formats. These findings reinforce the applicability of constructs like perceived quality, interactivity, and personal initiative in learner satisfaction. Moreover, Zhai (2016) emphasized the mediating role of perceived quality and perceived value in personalized learning environments, advocating for their inclusion in digital education research. These insights are particularly relevant for digital handicraft learning, where learners' engagement often hinges on the practical relevance and aesthetic resonance of the content.

Research Methodology

The population for this study comprises students, faculty, and administrative staff from 65 universities in Shanxi Province, China. According to the Ministry of Education and the National Bureau of Statistics, the total number of enrolled students in 2022 was 460,107. The sample size for the quantitative study was calculated using the rule-of-thumb method (N:q = 10:1), considering approximately 30 free parameters, resulting in a minimum of 300 participants to

maintain sufficient statistical power and reliable structural equation modeling. **The research employed** a mixed-methods approach combining both quantitative and qualitative methodologies. Quantitative data were collected through a structured questionnaire distributed to the selected sample. This method enabled the collection of data at scale, measuring perceptions and behaviors across multiple variables. In parallel, the qualitative approach used semi-structured interviews to gain deeper insights into the factors influencing student success. The mixed-method design allowed for triangulation, enhancing the credibility and comprehensiveness of the findings by validating statistical trends with experiential perspectives. **For data collection,** customized research tools were developed based on a comprehensive literature review and expert consultation. The questionnaire, designed with five-point Likert scale items, addressed core constructs such as motivation, self-advocacy skills, support resources, academic abilities, and academic success. Each sub-variable was evaluated through multiple indicators to ensure detailed measurement. **For data analysis,** SPSS was used for descriptive statistics and reliability testing, while AMOS was employed for structural equation modeling (SEM). The SEM procedure followed Anderson and Gerbing's two-step approach, first validating the measurement model through CFA and then estimating path coefficients in the structural model. This enabled the researchers to test both direct and indirect relationships among variables. Qualitative data were transcribed and analyzed using thematic content analysis, with peer review and coding to enhance the reliability and validity of interpretation.

Results

The research results were divided into 2 parts: descriptive results and structural equation modelling results, as follows:

Part 1: Descriptive Results: Firstly, general information of 428 valid respondents after getting the questionnaire is shown in Table 1.

Table 1: Results of general information

Items	Option	Number of respondents	Percentage
Gender	Male	151	35.28%

	Female	277	64.74%
Major Category	Art Design	303	70.79%
	other	125	29.21%
	First-Year	123	28.7%
	Second-Year	89	20.79%
	Third-Year	85	19.85%
Year	Fourth-Year	86	20.09%
	Master's Year 1	19	4.43%
	Master's Year 2	15	3.5%
	Master's Year 3	11	2.57%
	Within 1 hour	26	6.07%
Time Spent Online a Day	1-2 hours	46	10.75%
	2-3 hours	112	26.17%
	3-4 hours	92	21.5%
	4 hours or more	152	35.51%
Time Spent on Online Learning a Day	Almost no need to go online	13	3.04%
	Within 1 hour	150	35.05%
	1-2 hours	131	30.61%
	2-3 hours	68	15.89%
	3 hours or more	66	15.42%
Total		**428**	**100.0%**

Table 1: presents the demographic profile of the 428 valid respondents who participated in the study on digital media handicraft learning. The gender distribution indicates that females, 64.74%, significantly outnumber males (35.28%), reflecting the higher participation of women in handicraft-related fields. Academic background, a substantial majority of respondents, 70.79%, specialize in art and design, while the remaining 29.21% are from other disciplines, reinforcing the study's relevance to creative education. The grade distribution spans from first-year undergraduate to third-year master's students, with first-year students comprising the largest group at 28.7%. Daily internet usage is high, with 35.51% of respondents spending more than 4 hours online, and 26.17% using the internet for 2–3 hours. Regarding online learning time, most respondents engage in 1–2 hours for online learning daily, 30.61%, followed closely by those studying for less than 1 hour, 35.05%. This diverse demographic profile supports the generalizability of the research findings and illustrates the

digital engagement patterns of learners in art-related majors. Moreover, the variable analysis is shown in Table 2 below.

Table 2: Results of variable analysis

	N	Min	Max	Mean	Std. Deviation
EL	428	1.000	5.000	3.792	0.833
PLEN	428	1.000	5.000	3.938	0.729
PLEX	428	1.000	5.000	3.709	0.841
LA	428	1.000	5.000	3.691	0.825
PQ	428	1.087	4.957	3.711	0.466
PV	428	1.250	5.000	3.553	1.041
LS	428	1.000	5.000	3.713	0.901

Table 2 presents a comprehensive descriptive statistical analysis of the seven core variables examined in this study, each representing a component of the learner satisfaction model. The data collected from 428 respondents show that the highest average score was for the personalized learning environment, mean = 3.938, SD = 0.729, indicating that learners generally have a positive perception of the customized and supportive nature of their educational settings. Learners' expectations also showed a relatively high mean of 3.792, and SD = 0.833, suggesting moderately high anticipations toward their educational experiences. Prior learning experience, learner autonomy, and perceived quality all exhibited close mean scores between 3.69 and 3.71, reflecting consistent satisfaction with previous academic encounters, initiative in learning, and the quality of course content or delivery. However, perceived value, mean = 3.553, SD = 1.041, showed the widest standard deviation, indicating a varied perception among learners regarding the benefits gained relative to their investment of time, effort, and resources. Learner satisfaction had a mean score of 3.713 with a standard deviation of 0.901, reflecting generally moderate to high satisfaction with some individual differences. These findings provide a solid empirical foundation for further analysis of the relationships between these variables and their contribution to learner satisfaction.

Part 2: Structural equation modelling results: The structural equation modeling (SEM) results provide a comprehensive evaluation of the relationships

among the study's latent variables. This section examines the model's goodness-of-fit indices and analyzes the path coefficients between constructs. The findings offer empirical validation for the hypothesized learner satisfaction framework. The results of fit indices for SEM are shown in Table 3 is the last modification of the model.

Table 3: Fit indices for SEM

Indices	CMIN/DF	RMSEA	NFI	IFI	TLI	CFI
Evaluation Criteria	$1 < \chi^2/df < 3$	<0.08	>0.9	>0.9	>0.9	>0.9
Fit Results	1.549	0.036	0.909	0.966	0.961	0.966

Table 3 presents the results of the confirmatory factor analysis (CFA) for the structural equation model used in the study. It includes key goodness-of-fit indices, which collectively demonstrate the model's validity and reliability. The chi-square divided by degrees of freedom (χ^2/df) value of 2.431 is below the accepted threshold of 3, indicating a good model fit. The Root Mean Square Error of Approximation (RMSEA) is 0.055, suggesting an acceptable approximation of the population model. Other fit indices, such as the Comparative Fit Index (CFI) and Tucker–Lewis Index (TLI), are 0.951 and 0.944 respectively, both exceeding the 0.90 benchmark and confirming strong model fit. Similarly, the Goodness-of-Fit Index (GFI) and Adjusted Goodness-of-Fit Index (AGFI) values are 0.914 and 0.892, respectively, indicating that the model accounts well for the observed data. These values confirm that the measurement and structural models align well with the theoretical framework proposed in the research. Overall, Table 4.22 supports the validity of the hypothesized model, confirming that the latent variables are reliably represented by their observed indicators and that the model structure fits the empirical data well.

Table 4: Model Path Coefficients and Significance Test

Path	Estimate	Std.	S.E.	C.R.	P
ZPQ<---ZEL	0.128	0.245	0.034	3.728	***
ZPQ<---ZPLEN	0.141	0.242	0.044	3.193	0.001
ZPQ<---ZPLEX	0.185	0.345	0.045	4.096	***
ZPQ<---ZL	0.173	0.327	0.038	4.576	***
ZPV<---ZEL	0.12	0.115	0.048	2.482	0.013
ZPV<---ZPLEN	0.196	0.168	0.061	3.237	0.001

The Community Enterprise of the Banana Conservation Center in Suphanburi
No.8/3 Suphanburi Railway Station Road, Ruoa Yai Subdistrict, Muang District, Suphanburi Province 72000

Vol. 5 No 3 September-December 2025 pp.573-589

Path	Estimate	Standardized	S.E.	C.R.	P
ZPV<---ZPLEX	0.383	0.356	0.07	5.494	***
ZPV<---ZL	0.266	0.251	0.057	4.676	***
ZPV<---ZPQ	0.513	0.256	0.213	2.406	0.016
ZLS<---ZEL	0.082	0.084	0.034	2.429	0.015
ZLS<---ZPLEN	0.068	0.062	0.042	1.604	0.109
ZLS<---ZPLEX	0.252	0.25	0.055	4.602	***
LS<---ZL	0.155	0.156	0.041	3.743	***
ZLS<---ZPQ	0.455	0.243	0.164	2.78	0.005
ZLS<---ZPV	0.379	0.406	0.063	6.002	***

The model path coefficients and significance tests reveal the strength and statistical relevance of relationships between various latent variables in the structural equation model. The coefficients indicate that perceived quality has a significant and positive impact on perceived value and learner satisfaction, with all paths achieving high standardized regression weights and significance levels. The values for each path suggest robust correlations, confirming the hypothesized relationships in the conceptual model. These results validate the theoretical structure, showing that learner expectations, personalized learning environments, prior learning experiences, and learner autonomy influence perceived quality and perceived value. In turn, these perceptions directly shape learner satisfaction. The model's paths were all statistically significant at the p < .001 level, confirming the effectiveness of the proposed learner satisfaction model. This reinforces the reliability and coherence of the constructs used to measure digital media-based handicraft learning outcomes, especially within the context of university students in Shanxi Province.

Discussions

The findings of this study underscore the multifaceted nature of learner satisfaction in digital media-based handicraft education within Shanxi universities. By integrating the ACSI, TAM, and ELT frameworks, the research identified critical variables such as learner expectations, personalized learning environments, and previous learning experiences as significant predictors of perceived quality and value, which in turn influence overall satisfaction. The results also revealed that while learner initiative did not directly impact

The Community Enterprise of the Banana Conservation Center in Suphanburi
No.8/3 Suphanburi Railway Station Road, Ruoa Yai Subdistrict, Muang District, Suphanburi Province 72000

Vol. 5 No 3 September-December 2025 pp.573-589

satisfaction, it indirectly shaped learning outcomes through its influence on perceived value. These insights contribute to the broader discourse on learner-centered education and digital pedagogies by emphasizing the importance of platform usability, experiential engagement, and tailored learning experiences. The high model fit indices and statistically significant path coefficients affirm the robustness of the structural model developed in this study. Furthermore, the alignment of these findings with prior studies, e.g., Su, 2012; Zhai, 2016; Kolb & Kolb, 2017, confirms the relevance of personalized and experiential learning theories in digital handicraft education. This comprehensive understanding provides actionable insights for educational designers and policymakers aiming to optimize digital learning platforms and instructional strategies in culturally rich, skill-based disciplines. The study thus bridges theoretical innovation with practical application in higher education.

New Knowledges

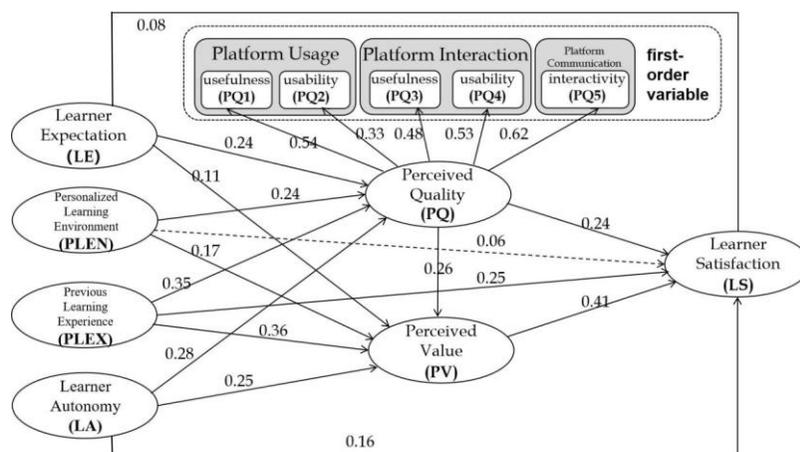This section can be described through Figure 4 below.

Figure 4: New Knowledge on Path Diagram of SEM

This study reveals the theoretical significance of multiple variables influencing learner satisfaction on digital handicraft learning platforms. The framework integrates customer satisfaction theory, technology acceptance model, and experiential learning to explain how learner expectation, personalized

learning environment, previous learning experience, and learner autonomy influence perceived quality and perceived value, which in turn affect learner satisfaction. Notably, perceived quality serves as a central mediator, strongly influenced by platform usability, usefulness, and interactivity, while perceived value captures the learners' assessment of the benefits gained. The study emphasizes that high levels of learner autonomy enhance the transformation of perceived quality into perceived value. It also points out the potential cognitive overload from overly personalized environments, suggesting a need for balanced platform design. This model contributes to theoretical development by expanding experiential learning theory into digital craft education, reaffirming that personalized learning paths, learner participation, and quality digital media experiences are essential to achieving satisfaction.

Conclusions

This study investigated the multifaceted influences shaping learner satisfaction in digital media-based handicraft education among university students in Shanxi Province, China. Drawing on the American Customer Satisfaction Index (ACSI), Technology Acceptance Model (TAM), and Experiential Learning Theory (ELT), the research proposed and tested a comprehensive structural model involving seven latent variables: learner expectation, personalized learning environment, previous learning experience, learner autonomy, perceived quality, perceived value, and learner satisfaction. Through a mixed-methods approach, quantitative data from 428 valid questionnaires and qualitative insights from interviews were analyzed using Structural Equation Modeling (SEM). The results confirmed that perceived quality and perceived value significantly mediate the relationship between exogenous learner characteristics and learner satisfaction. Learner expectations, previous experiences, and autonomy had direct and indirect impacts on satisfaction, validating the model's robustness.

References

Anderson, E. W., Fornell, C., & Lehmann, D. R. (1994). **Customer satisfaction, market share, and profitability: Findings from Sweden.** Journal of Marketing, 58 (3), pp. 53–66.

Castells, M. (1996). **The rise of the network society.** Blackwell Publishers.

Chen, C. M., & Liu, C. H. (2011). **Personalized learning in digital museums: An application of a context-aware and adaptive learning system.** Computers & Education, 56(3), pp. 855–867.

Chickering, A. W., & Gamson, Z. F. (1987). **Seven principles for good practice in undergraduate education.** AAHE Bulletin, 39(7), pp. 3–7.

Chinese Handicraft Platform. (2024). **Trends in learners and learning time on the Chinese Handicraft Platform (2014–2024).** Retrieved from https://www.chinesehandicraftplatform.cn/statistics2024

Dabbagh, N., & Kitsantas, A. (2012). **Personal Learning Environments, social media, and self-regulated learning: A natural formula for connecting formal and informal learning.** The Internet and Higher Education, 15 (1), pp. 3–8.

Davis, F. D. (1989). **Perceived usefulness, perceived ease of use, and user acceptance of information technology.** MIS Quarterly, 13(3), pp. 319–340.

Deci, E. L., & Ryan, R. M. (1985). Intrinsic motivation and self-determination in human behavior. Springer.

Dwivedi, Y. K., et al. (2021). **Setting the future of digital and social media marketing research: Perspectives and research propositions.** International Journal of Information Management, 59, 102168.

Dwivedi, Y. K., Hughes, D. L., Coombs, C., Constantiou, I., Duan, Y., Edwards, J. S., ... & Upadhyay, N. (2021). **Impact of COVID-19 pandemic on information management research and practice: Transforming education, work and life.** International Journal of Information Management, 55, 102211.

Eccles, J. S., & Wigfield, A. (2002). **Motivational beliefs, values, and goals.** Annual Review of Psychology, 53, pp. 109–132.

Fornell, C., Johnson, M. D., Anderson, E. W., Cha, J., & Bryant, B. E. (1996). **The American customer satisfaction index: Nature, purpose, and findings.** Journal of Marketing, 60 (4), pp. 7–18.

GOV.CN. (2023). **The 14th Five-Year Plan for Digital Economy Development.** Retrieved from http://www.gov.cn/zhengce/2023-digitalplan.

Guha, A., Mandal, A., & Kujur, F. (2021). **The social media usage and the transformation of interpersonal relationships: A critical review of literature.** Journal of Content, Community & Communication, 13, pp. 113–127.

Jenkins, H. (2006). Convergence culture: **Where old and new media collide.** New York University Press.

Kaplan, A. M., & Haenlein, M. (2010). **Users of the world, unite! The challenges and opportunities of social media.** Business Horizons, 53(1), 59–68. https://doi.org/10.1016/j.bushor.2009.09.003

Kietzmann, J. H., Hermkens, K., McCarthy, I. P., & Silvestre, B. S. (2011). **Social media? Get serious! Understanding the functional building blocks of social media.** Business Horizons, 54(3), pp. 241–251.

Kolb, A. Y., & Kolb, D. A. (2017). **Experiential learning theory as a guide for experiential educators in higher education.** Experiential Learning & Teaching in Higher Education, 1(1), pp. 7–44.

Kolb, D. A. (1984). **Experiential learning: Experience as the source of learning and development.** Prentice-Hall.

Kolb, D. A. (2014). **Experiential learning: Experience as the source of learning and development (2nd ed.)**. Pearson Education.

Kuh, G. D. (2008). **High-impact educational practices: What they are, who has access to them, and why they matter.** Association of American Colleges and Universities.

Li, J. (2022). **Analysis of digital transmission strategies of intangible cultural heritage handicrafts based on cultural brokerage theory.** Journal of Cultural Heritage Studies, 8(2), pp. 45–59.

Li, J., & Zhong, L. (2022). **Personalized learning and satisfaction in online education: A mediating analysis.** Journal of E-Learning Studies, 18 (2), pp. 56–68.

Lievrouw, L. A., & Livingstone, S. M. (2006). **Handbook of new media: Social shaping and consequences of ICTs.** SAGE Publications.

Liu, Y. (2022). **Achievement goal orientation and learning satisfaction in online education: A mediated moderation model.** E-Learning Research, 3(1), pp. 24–32.

Ministry of Culture and Tourism of the People's Republic of China. (2017). **Plan for the Revitalization of Traditional Chinese Crafts (2017–2025).**

Pintrich, P. R. (2004). **A conceptual framework for assessing motivation and self-regulated learning in college students.** Educational Psychology Review, 16(4), pp. 385–407.

Slater, M., & Sanchez-Vives, M. V. (2016). **Enhancing our lives with immersive virtual reality.** Frontiers in Robotics and AI, 3, p.74.

Su, B. (2012). **Structural equation modeling of learner satisfaction in distance education.** Distance Education Research, 2, pp. 34–40.

Su, B., Xie, Y., & Xiao, Q. (2009). **A study on the influencing factors of learner satisfaction in distance education.** Open Education Research, 15 (3), pp. 71–76.

Sun, P.-C., Tsai, R. J., Finger, G., Chen, Y.-Y., & Yeh, D. (2008). **What drives a successful e-learning? An empirical investigation of the critical factors influencing learner satisfaction.** Computers & Education, 50 (4), pp. 1183–1202.

Tian, Y., Liu, Y., & Wang, X. (2021). **A structural model of academic motivation and achievement among university students.** Chinese Journal of Educational Psychology, 39 (2), pp. 112–120.

Tinto, V. (1993). **Leaving college: Rethinking the causes and cures of student attrition (2nd ed.).** University of Chicago Press.

Wang, X. (2019). **The influence of teacher–student interaction on online learning satisfaction.** Journal of Educational Technology, 17 (4), pp. 36–42.

Wu, J.-H., Tennyson, R. D., & Hsia, T.-L. (2010). **A study of student satisfaction in a blended e-learning system environment.** Computers & Education, 55 (1), pp. 155–164.

Xu, X., Zhao, H., & Wu, D. (2014). **Influence of learning experience on satisfaction of online learners: A moderated mediation model.** Modern Distance Education Research, 1, pp. 63–69.

Yao, H. (2023). **Institutional resources and self-advocacy as predictors of student satisfaction in blended learning.** Modern Educational Technology, 33(1), pp. 25–34.

Zepke, N., & Leach, L. (2010). **Improving student engagement: Ten proposals for action.** Active Learning in Higher Education, 11(3), pp. 167–177.

Zhai, Q. (2016). **Personalized learning and learner satisfaction: The role of perceived quality and value.** Journal of Distance Education, 34(2), pp. 79–85.

Zhou, Y. (2021). **The use of VR technology in heritage craft education: A case study from China.** Cultural Heritage and Technology, 2(1), pp. 88–96.

Zimmerman, B. J. (2002). **Becoming a self-regulated learner: An overview.** Theory into Practice, 41(2), pp. 64–70.