Factors Influencing Drama and Film Students' Satisfaction with the Quality of Innovation and Entrepreneurship Courses: A Study Based on a Public University in Hubei Province, China

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Abstract

Assessing students' satisfaction is essential for evaluating the effectiveness of innovation and entrepreneurship courses, yet research on determinants among undergraduate Drama and Film Studies students in China remains limited. This study examines the influence of Responsiveness, Empathy, Course Content Quality, Course Design Quality, Perceived Usefulness, and Self-efficacy on course satisfaction, focusing on a public university in Huanggang, Hubei Province—a key educational hub that has implemented a four-dimensional linkage mechanism integrating policy support, talent development, practical platforms, and financial aid. A quantitative, multi-stage design comprising baseline survey, Instructional Design Intervention (IDI), and post-intervention assessment was employed. A structured questionnaire, validated through expert review (IOC > .67), pilot reliability testing (Cronbach's $\alpha \geq .688$), and cross-cultural checks, was administered to 90 participants, and multiple linear regression was used to assess relationships between variables. A 10-week instructional design intervention with 40 students was evaluated using paired-samples t-tests. Regression results identified four significant predictors ($p < .05$) of course satisfaction: Perceived Usefulness ($\beta = .277$, $p = .005$), Responsiveness ($\beta = .2482$, $p = .021$), Empathy ($\beta = .247$, $p = .010$), and Course Content Quality ($\beta = .1823$, $p = .044$). Post-intervention, overall satisfaction increased significantly (mean from 3.06 to 3.33, $p < .001$), with notable gains in Responsiveness, Empathy, Course Content Quality, Perceived Usefulness, and Self-efficacy. The findings validate and extend existing literature, refine the conceptualization of innovation and entrepreneurship education in arts disciplines, and offer empirical guidance for improving curriculum design, instructional practices, and student engagement within the "New Liberal Arts" framework in Hubei Province, China.

Keywords: Innovation and Entrepreneurship Courses, Hubei Province, Responsiveness, Empathy, Course Content Quality, Perceived Usefulness, Course Satisfaction

Introduction

1. The Importance and Necessity of the Study

Investigating the satisfaction of undergraduate Drama and Film majors with innovation and entrepreneurship courses in Chinese higher education is of substantial theoretical and practical importance. Student satisfaction is widely recognized as a key indicator of educational quality and institutional effectiveness, particularly in mass higher education systems in developing countries.

Assessing students' satisfaction is crucial for evaluating educational programs, particularly in professional and general education courses within higher education. Despite extensive research on student satisfaction, there is a notable lack of studies focusing on satisfaction with general innovation and entrepreneurship courses among Chinese undergraduates, especially those majoring in Drama and Film. This gap is concerning as the success of students in employment or entrepreneurship post-graduation hinges on the outcomes of both professional and general courses.

Student satisfaction is a significant concern in China's higher education system, influenced by the exam-centric approach in earlier education levels and the strong emphasis on employment outcomes. Innovation and

entrepreneurship courses are intended to help students clarify career trajectories and develop hands-on skills that support future employment or entrepreneurial start-ups. According to relevant studies, general satisfaction with entrepreneurship education courses among Chinese undergraduates is relatively low due to misalignment between course content and disciplinary needs, limited practical teaching, and widespread risk aversion (Li et al., 2023; Lyu et al., 2021). This landscape impoverishes students' learning and knowledge base, erodes their interest and enthusiasm, and diminishes their willingness to dedicate their careers to entrepreneurial ventures after graduation.

To address these challenges, this research focuses on a public undergraduate institution in Huanggang, China, examining the impact of six key factors—Responsiveness, Empathy, Course Content Quality, Course Design Quality, Perceived Usefulness, and Self-efficacy—on course satisfaction in innovation and entrepreneurship education. Through this analysis, the study seeks to provide actionable suggestions for educators and policymakers to enhance teaching methods and curriculum development. The results aim to advance understanding of course satisfaction in innovation and entrepreneurship education within Drama and Film disciplines, offering theoretical and practical guidance to elevate educational standards within China's higher education framework.

2. Research Questions

The research is guided by the following questions:

Do Responsiveness, Empathy, Course Content Quality, Course Design Quality, Perceived Usefulness, and Self-efficacy significantly influence students' course satisfaction?

What are the present levels of Responsiveness, Empathy, Course Content Quality, Course Design Quality, Perceived Usefulness, Self-efficacy, and course satisfaction among Drama and Film students?

What Instructional Design Intervention (IDI) strategies are suitable for enhancing the key factors influencing students' satisfaction with the course?

Are there notable differences in Responsiveness, Empathy, Course Content Quality, Course Design Quality, Perceived Usefulness, Self-efficacy, and course satisfaction between the pre- and post-IDI phases?

3. Research Objectives

In line with the research questions, this study pursues the following objectives:

To examine the causal relationships between six determinants: Responsiveness, Empathy, Course Content Quality, Course Design Quality, Perceived Usefulness, and Self-efficacy and course satisfaction among undergraduate Drama and Film students enrolled in innovation and entrepreneurship courses at a provincial normal university in Hubei Province, China.

To describe the baseline levels of Responsiveness, Empathy, Course Content Quality, Course Design Quality, Perceived Usefulness, Self-efficacy, and course satisfaction among these students.

To design and implement an Instructional Design Intervention (IDI) that is primarily informed by the key determinants identified through the baseline regression model, while concurrently incorporating enhancements to foundational aspects of the learning environment as guided by established educational theory, in order to holistically improve students' experiences in innovation and entrepreneurship courses.

To evaluate the effectiveness of the IDI by comparing pre- and post-intervention scores on the six determinants and course satisfaction, and to provide actionable recommendations for enhancing teaching methodologies and curriculum development in innovation and entrepreneurship education.

Methods and Materials

1. Research Conceptual Framework

This study's conceptual framework amalgamates three theoretical models by Barrera-Verdugo et al. (2022); Darawong and Widayati (2022) and Cheng (2020), identifying six core variables that synthesize key factors impacting student satisfaction in higher education settings in developing nations. Barrera-Verdugo et al. (2022) focused on entrepreneurship courses in Latin American universities, emphasizing instructional interaction, psychological resources (e.g., resilience and Self-efficacy), and perceived course value as drivers of satisfaction. Darawong and Widayati (2022) conceptualized online course quality in terms of service-quality-oriented instructional competence, highlighting Responsiveness and Empathy as crucial dimensions of instructor-student interaction. Cheng (2020) developed a model of satisfaction and continuance intention with cloud-based e-learning, stressing the roles of Course Content Quality, Course Design Quality, and Perceived Usefulness.

By integrating these three models, the present study groups the six determinants into four dimensions: 1) instructor-related service quality—Responsiveness (RE) and Empathy (EM), 2) structural and pedagogical quality of the learning environment—Course Content Quality (CCQ) and Course Design Quality (CDQ), 3) utilitarian course value—Perceived Usefulness (PU), and 4) student psychological resources—Self-efficacy (SE). These six determinants are hypothesized to influence Students' Satisfaction (SS) with innovation and entrepreneurship courses among Drama and Film majors in a Chinese public university context.

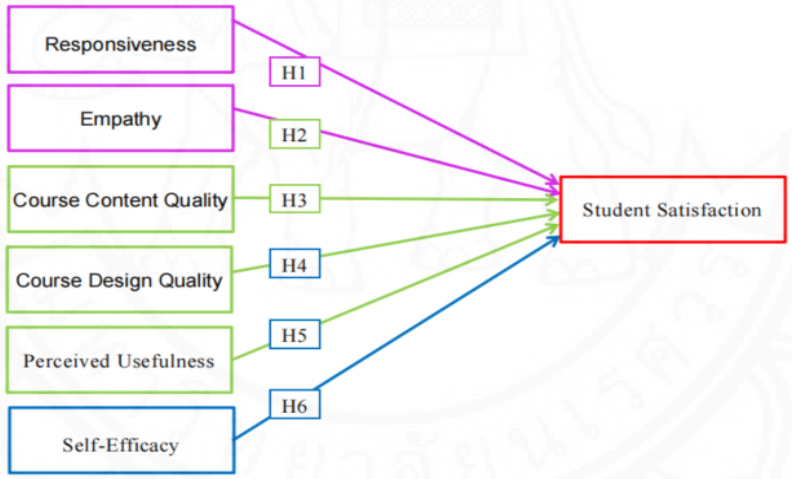

Figure 1 Conceptual framework of factors influencing drama and film students' satisfaction with innovation and entrepreneurship courses.
(Adapted from Barrera-Verdugo et al., 2022; Darawong & Widayati, 2022; Cheng, 2020)

H1: Responsiveness (RE) has a significant impact on Student Satisfaction (SS).

H2: Empathy (EM) has a significant impact on Student Satisfaction (SS).

H3: Course Content Quality (CCQ) has a significant impact on Student Satisfaction (SS).

H4: Course Design Quality (CDQ) has a significant impact on Student Satisfaction (SS).

H5: Perceived Usefulness (PU) has a significant impact on Student Satisfaction (SS).

H6: Self-efficacy (SE) has a significant impact on Student Satisfaction (SS).

2. Research Procedure

The study employed a four-stage sequential design spanning 15 weeks to ensure methodological rigor:

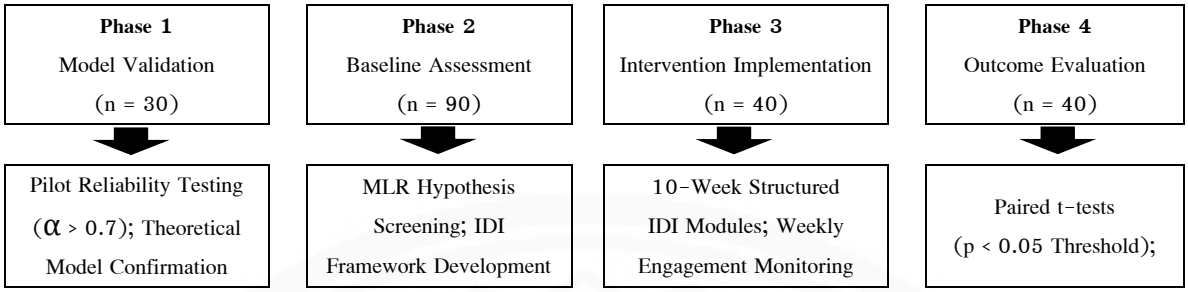

Figure 2 Four-stage sequential design.

Stage 1: Pilot Validation (Weeks 1-2)

- Administered pilot survey to 30 participants
- Conducted reliability testing (Cronbach's α > 0.7)
- Established preliminary regression model

Stage 2: Baseline Assessment (Weeks 3-4)

- Deployed full-scale survey (n = 90)
- Performed MLR hypothesis screening (p < 0.05 threshold)

After collecting baseline data from all 90 participants, multiple linear regression analysis was conducted to identify the key predictors of satisfaction. Concurrently, guided by an integrated educational theoretical framework, an intervention plan was designed to systematically enhance all six influencing factors. Consequently, the subsequently implemented Instructional Design Intervention was structured to comprehensively address these variables from the outset, enabling a post-intervention evaluation of changes across all factors to holistically assess the overall impact of the intervention.

Stage 3: IDI Intervention (Weeks 5-14)

- 10-week structured implementation (n = 40)
- Phase 1 (Weeks 5-8): Instructional strategy optimization
- Phase 2 (Weeks 9-12): Interactive engagement enhancement
- Phase 3 (Weeks 13-14): Curriculum content refinement

Stage 4: Outcome Evaluation (Week 15)

- Collected post-intervention data (n = 40)
- Analyzed outcomes via paired t-tests and Cohen's d effect

3. Research Population, Sample Size, and Sampling Procedures

This study was conducted among undergraduate students majoring in Drama and Film at a provincial university in Huanggang, Hubei Province, China. Participants were recruited from two graduating classes (Broadcasting and Hosting Arts, and Radio and Television Directing) at the School of Media and Film. All participants had completed three years of specialized coursework and were currently enrolled in innovation and entrepreneurship courses. All participants were adults aged 18 or above and provided written informed consent.

A multi-stage sampling procedure was adopted. First, a pilot survey was administered to 30 students to test the reliability of the questionnaire. Subsequently, questionnaires were distributed to 100 senior-year students. After excluding 10 invalid responses, a final baseline sample of 90 participants was established. This sample size

meets the recommended minimum of 5 cases per predictor variable for multiple regression analysis (Hair et al., 2010). From this pool, 40 students were randomly selected from among volunteers to participate in a 10-week Instructional Design Intervention (IDI), while the remaining 50 students served as a comparison group. Attrition analysis indicated no significant differences in all baseline variables between the intervention and non-intervention groups ($p > .12$), establishing statistical equivalence prior to the intervention. Ethical approval for this study was granted by the Research Ethics Committee of Assumption University (Certification No. 28/2025).

4. Research Instruments

The survey questionnaire used in this study was adapted by integrating scales from Barrera-Verdugo et al. (2022); Darawong and Widayati (2022) and Cheng (2020). The questionnaire consisted of three parts: 1) screening questions, 2) demographic information, and 3) core items measuring six independent variables (Responsiveness, Empathy, Course Content Quality, Course Design Quality, Perceived Usefulness, Self-efficacy) and one dependent variable (Course Satisfaction). All items were measured using a five-point Likert scale.

To ensure instrument quality, content validity was assessed by three experts (one Chinese professor and two Thai professors) using the Index of Item-Objective Congruence (IOC). All items achieved IOC scores above the .67 threshold. A pilot test (n = 30) demonstrated acceptable internal consistency reliability, with Cronbach's alpha coefficients for all constructs ranging from .688 to .829, meeting or approaching the acceptable threshold of 0.7 (Nunnally & Bernstein, 1994).

Table 1 Pilot test result

Variables	No. of Items	Sources	Cronbach's Alpha	Strength of Association
Responsiveness	5	Darawong and Widayati (2022)	0.815	Good
Empathy	4	Darawong and Widayati (2022)	0.762	Acceptable
Course Content Quality	3	Cheng (2020)	0.688	Questionable
Course Design Quality	4	Cheng (2020)	0.761	Acceptable
Perceived Usefulness	4	Cheng (2020)	0.738	Acceptable
Self-efficacy	3	Barrera-Verdugo et al. (2022)	0.716	Acceptable
Students' Satisfaction	5	Barrera-Verdugo et al. (2022)	0.829	Good

Several steps were taken to ensure data integrity after data collection: ten cases with more than 20% missing responses were excluded; Mahalanobis distance analysis ($\alpha = .001$) identified three multivariate outliers; and Shapiro-Wilk tests confirmed the approximate normality of residuals ($p > .05$). The final effective sample sizes were n = 90 for the baseline phase and n = 40 for the intervention phase.

Results

1. Demographic Profile

The demographic profile of the entire research population (n = 90) was presented, followed by a subgroup of selected students (n = 40) who participated in the Instructional Design Intervention (IDI), as depicted in Table 2.

Table 2 Demographic profile of participants (n = 90; IDI subgroup n = 40)

Entire Research Population (n = 90)		Frequency	Percent
Gender	Male	27	30.00%
	Female	63	70.00%

Table 2 (Cont.)

Entire Research Population (n = 90)		Frequency	Percent
Age	20	2	2.22%
	21	45	50.00%
	22	25	27.78%
	23	18	20.00%
Total		**90**	**100%**
IDI Participants (n = 40)		**Frequency**	**Percent**
Gender	Male	11	27.50%
	Female	29	72.50%
Age	20	1	2.50%
	21	21	52.50%
	22	11	27.50%
	23	7	17.50%
Total		**40**	**100%**

2. Results of Multiple Linear Regression

The study employed Multiple Linear Regression (MLR) on 90 survey responses to assess the support for six hypotheses concerning students' satisfaction as the dependent variable. The Variance Inflation Factor (VIF) analysis revealed no issues of multicollinearity, as all VIF values were below the threshold of 5 (Hair et al., 2010). Moreover, except for Course Design Quality and Self-efficacy, the factor loadings of the other variables exceeded .50, with t-values above 1.98 and p-values below .05, indicating strong construct validity. The coefficient of determination (R^2) for the regression model was .794 (Adjusted R^2 = .757), suggesting that the six independent variables collectively accounted for 79.40% of the variance in students' satisfaction.

Table 3 The multiple linear regression of five independent variables on students' satisfaction

Variables	Standardized Coefficients Beta Value	t-value	p-value	VIF	R^2 (adj.)
Responsiveness	0.2482	2.350	0.021	3.76	0.794
Empathy	0.2470	2.637	0.010	4.46	
Course Content Quality	0.1823	2.045	0.044	3.19	
Course Design Quality	-0.0200	-0.190	0.850	4.46	
Perceived Usefulness	0.2770	2.866	0.005	3.76	
Self-efficacy	0.0503	0.550	0.583	3.36	

p-value < 0.05*

In summary, the findings indicate support for hypotheses H1, H2, H3, and H5, while H4 and H6 did not receive support. Perceived Usefulness (β = .2770, p = .005) exerted the strongest positive effect on satisfaction, followed by Responsiveness (β = .2482, p = .021), Empathy (β = .2470, p = .010), and Course Content Quality (β = .1823, p = .044). Course Design Quality (β = -.0200, p = .850) and Self-efficacy (β = .0503, p = .583) did not significantly influence Students' Satisfaction in the baseline model. All predictors exhibited VIF values below 5, suggesting the absence of substantial multicollinearity.

Subsequently, the Instructional Design Intervention (IDI) was evaluated using paired-samples t-tests to test the following hypotheses:

H7: There is a significant difference in Responsiveness Pre-IDI and Post-IDI.

H8: There is a significant difference in Empathy Pre-IDI and Post-IDI.

H9: There is a significant difference in Course Content Quality Pre-IDI and Post-IDI.

H10: There is a significant difference in Course Design Quality Pre-IDI and Post-IDI.

H11: There is a significant difference in Perceived Usefulness Pre-IDI and Post-IDI.

H12: There is a significant difference in Self-efficacy Pre-IDI and Post-IDI.

H13: There is a significant difference in Students' Satisfaction Pre-IDI and Post-IDI.

3. IDI Intervention Stage

The IDI intervention plan spanned 10 weeks and utilized quantitative data collected prior to the IDI stage to enhance student satisfaction, as outlined in Figure 3 by the researcher in a chronological manner.

Part 1	Part 2	Part 3
Early Stage to IDI (Week 1-4)	**Middle Stage to IDI (Week 5-8)**	**Later Stage to IDI (Week 9-10)**
Design an online questionnaire.	Enhanced Interactive Sessions.	Design the post-IDI questionnaire.
Distribute the questionnaire.	Performance Improvement Workshops.	Distribute the post-IDI questionnaire.
Collect data from 40 participants.	Mid-term Course Evaluation.	Collect and analyze data.
Conduct preliminary data analysis.	Certification and Advanced Training Programs.	Prepare the final report.
Perform in-depth data analysis.	Standardization of Course Delivery.	

Figure 3 IDI activities.

4. Results Comparison between Pre-IDI and Post- IDI

The researcher conducted paired-sample t-test analyses on seven variables, namely Responsiveness, Empathy, Course Content Quality, Course Design Quality, Perceived Usefulness, Self-efficacy, and Students' Satisfaction, to determine differences between the pre-IDI and post-IDI phases. The following tables present the results of the paired-sample t-test analyses for the seven variables.

Table 4 Paired-sample t-test results for pre-IDI and post-IDI measurements

	Variables		Mean	SD	t-value	p-value	SE
Pair 1	Pre-RE	40	2.89	0.940	-3.91	39.0	< .001
	Post-RE	40	3.15	0.685			
Pair 2	Pre-EM	40	2.91	0.788	-2.81	39.0	0.008
	Post-EM	40	3.02	0.799			
Pair 3	Pre-CCQ	40	2.86	0.993	-2.99	39.0	0.005
	Post-CCQ	40	3.05	0.801			
Pair 4	Pre-CDQ	40	2.82	0.782	-2.83	39.0	0.007
	Post-CDQ	40	2.91	0.775			
Pair 5	Pre-PU	40	2.91	0.962	-2.88	39.0	0.006
	Post-PU	40	3.04	0.865			
Pair 6	Pre-SE	40	2.88	1.003	-3.43	39.0	0.001
	Post-SE	40	3.07	0.821			
Pair 7	Pre-SS	40	3.06	1.046	-3.69	39.0	< .001
	Post-SS	40	3.33	0.793			

The paired samples t-test revealed statistically significant enhancements in all measured variables from pre- to post-intervention. Specifically:

The mean score for Responsiveness (RE) significantly increased from 2.89 (SD = 0.940) to 3.15 (SD = 0.685), with a t-value of -3.91 ($p < .001$), indicating a notable enhancement in students' perceived responsiveness.

Empathy (EM) scores significantly improved from 2.91 (SD = 0.788) to 3.02 (SD = 0.799), t = -2.81, p = .008.

The average score for Course Content Quality (CCQ) increased from 2.86 (SD = 0.993) to 3.05 (SD = 0.801), t = -2.99, p = .005.

The average score for Course Design Quality (CDQ) improved from 2.82 (SD = 0.782) to 2.91 (SD = 0.775), t = -2.83, p = .007.

The average score for Perceived Usefulness (PU) increased from 2.91 (SD = 0.962) to 3.04 (SD = 0.865), t = -2.88, p = .006.

Self-efficacy (SE) improved from 2.88 (SD = 1.003) to 3.07 (SD = 0.821), t = -3.43, p = .001.

The mean score for Students' Satisfaction (SS) increased from 3.06 (SD = 1.046) to 3.33 (SD = 0.793), t = -3.69 ($p < .001$), indicating a significant improvement in student satisfaction following the intervention.

These findings underscore the intervention's efficacy in improving multiple facets of the learning environment, such as Responsiveness, Empathy, Course Content Quality, Course Design Quality, Perceived Usefulness, Self-efficacy, and Students' Satisfaction.

Discussion

This study employed a multiple linear regression analysis to identify key predictors of student satisfaction and subsequently designed and evaluated an instructional intervention based on these findings. The results revealed that among the six influencing factors, Perceived Usefulness, Responsiveness, Empathy, and Course Content Quality exerted significant positive effects on student satisfaction in innovation and entrepreneurship courses. Consequently, the implemented Instructional Design Intervention primarily targeted these four core factors for enhancement. Although Course Design Quality and Self-efficacy did not demonstrate significant effects in the baseline model, they were still incorporated into the intervention optimization based on the integrated theoretical framework of this study, as they represent fundamental constructs of an effective learning environment and crucial psychological resources, aimed at constructing a comprehensive and robust learning experience. Through a survey of 90 students and a subsequent 10-week intervention experiment involving 40 participants, the mixed-methods approach integrating regression analysis with paired t-tests confirmed the effectiveness of the comprehensive program: post-intervention scores across all variables improved significantly. This indicates that within the dynamic teaching-learning process, even factors non-significant in the initial state can be activated and collectively contribute to the overall enhancement of the educational experience and student satisfaction.

1. Summary of Findings

The results of the Multiple Linear Regression analysis indicated that four of the six variables—Responsiveness, Empathy, Course Content Quality, and Perceived Usefulness—significantly and positively influenced students' satisfaction ($p < .05$). Perceived Usefulness ($\beta = .277$, $p = .005$) exerted the strongest effect, followed by Responsiveness ($\beta = .2482$, $p = .021$), Empathy ($\beta = .247$, $p = .010$), and Course Content Quality ($\beta = .1823$, $p = .044$). In contrast, Course Design Quality ($\beta = -.020$, $p = .850$) and Self-efficacy ($\beta = .0503$, $p = .583$) did not significantly influence student satisfaction. All predictors exhibited VIF values below 5, suggesting the absence of substantial multicollinearity issues. The model accounted for 79.4% of the variance in student satisfaction (Adjusted $R^2 = .757$), indicating substantial explanatory capability and affirming the pivotal role of these variables in understanding students' evaluations of course satisfaction.

The paired-sample t-test results validated the efficacy of the 10-week instructional design intervention, demonstrating significant enhancements across all variables post-intervention ($p < .01$), irrespective of their baseline significance in the regression analysis. Noteworthy improvements were observed in Students' Satisfaction, which increased from a mean of 3.06 to 3.33 ($t = -3.69$, $p < .001$), alongside gains in Responsiveness, Empathy, Course Content Quality, and Perceived Usefulness. Taken together, these results underscore the predictive capacity of core instructional variables and the tangible advantages of targeted, theory-informed interventions in augmenting students' educational journeys.

2. Theoretical Discussion of Key Findings

Perceived Usefulness emerged as the strongest predictor of satisfaction. This finding aligns closely with the core arguments of Cheng's (2020) Technology Acceptance Model-based research on e-learning satisfaction and resonates with the perspective of Barrera-Verdugo et al. (2022), who emphasized the practical value of courses. For students majoring in Drama and Film, whose career paths often revolve around project-based work and the cultural industries, the instrumental connection between course content and career development is paramount. When students perceive the course as effectively providing practical skills such as project planning, fundraising, audience development, and venture management, their learning expectations are confirmed, leading to a substantial increase in satisfaction. This suggests that within a socio-cultural context characterized by significant employment pressure, students' perception of the return on educational investment is a central criterion for course evaluation.

Responsiveness and Empathy, as dimensions of instructor-related service quality, significantly influenced satisfaction. This strongly supports the "service-quality-oriented instructional competence" framework proposed by Darawong and Widayati (2022). Within the Chinese higher education environment, timely and supportive instructor feedback (Responsiveness) not only addresses academic queries but also signals respect and institutional support. Similarly, instructor Empathy—demonstrated through an understanding of the unique pressures faced by arts students (e.g., creative blocks and subjective evaluation)—fosters a psychologically safe learning climate. This indicates that students perceive effective teaching not merely as knowledge transmission but as a reliable and supportive service interaction, which is crucial for enhancing engagement and satisfaction.

The positive impact of Course Content Quality on satisfaction is consistent with the propositions of Cheng's (2020) Expectation-Confirmation Model, which posits that high-quality core material is fundamental to meeting student expectations. For the participants in this study, course content that is closely aligned with the forefront of the cultural and creative industries (e.g., incorporating case studies of successful film and television startups, analyses of digital content distribution models) and that stimulates critical thinking can effectively confirm and surpass their expectations for an innovation and entrepreneurship course, thereby establishing a solid foundation for satisfaction.

It is noteworthy that Course Design Quality and Self-efficacy did not exhibit significant direct effects on satisfaction in the baseline model. This finding provides an important contextual qualification to the integrated theoretical framework of this study. Although Cheng's (2020) model highlights course design, and the theory of Barrera-Verdugo et al. (2022) underscores Self-efficacy as a key psychological resource, their lack of direct significance may reflect the specific instructional culture. In a teaching mode that remains largely instructor-led, students might be less sensitive to features of course design such as flexibility and modularity. Concurrently, Self-efficacy likely functions more as a mediating variable; its impact on satisfaction is indirect, channeled through course experiences like perceived usefulness and instructor support, rather than acting as a direct antecedent.

Nevertheless, the significant post-intervention improvement in these two constructs demonstrates that they can be effectively activated through targeted instructional design and collectively contribute to the overall enhancement of the learning experience.

In summary, the findings of this study validate the cross-contextual applicability of some core theoretical constructs (e.g., Perceived Usefulness, Responsiveness) across different cultures and disciplines, while also revealing that the pathways through which other constructs (e.g., Course Design, Self-efficacy) influence satisfaction may be more context-sensitive and indirect. This underscores that in innovation and entrepreneurship education, a comprehensive intervention strategy—one that focuses on empirically identified key drivers while also being grounded in sound educational theory to optimize the overall learning environment—is essential for holistically improving student satisfaction.

3. Cross-cultural Interpretation of Key Predictors

To situate the Chinese findings within a broader perspective, this study draws a qualitative comparison with existing literature on entrepreneurship education in Latin America. The approach is interpretive rather than statistical, focusing on thematic convergences and divergences in student satisfaction determinants.

Table 5 Conceptual comparison of key predictors across regions

Predictor	Relative Importance in Present Chinese Context	Relative Importance in International Literature (e.g., Latin America)	Notes
Perceived Usefulness	High	High-Moderate	Comparable across contexts; Tied to career and skill relevance
Teaching Responsiveness / Feedback	High	Moderate	Interaction construct varies by cultural expectations
Course Content Quality	Moderate	Moderate	Conceptually similar emphasis
Course Design Quality	Moderate-Low	High	Stronger emphasis in student-centered pedagogies
Self-efficacy	Low	High	Not a dominant factor among Chinese Drama & Film students
Empathy (Instructor Care)	Moderate	Not consistently reported	Equivalent constructs vary across studies

Note: This table is conceptual and does not represent statistical comparisons.

As summarized in Table 5, constructs such as perceived usefulness and teaching responsiveness are consistently relevant across contexts, though their relative emphasis varies. Chinese Drama and Film students strongly prioritize usefulness and feedback—reflecting an instrumental view of education aligned with employment-oriented pressures and a pragmatic learning culture. By contrast, Latin American studies place greater weight on course design quality and Self-efficacy, suggesting a pedagogical culture that values student-centered learning, autonomy, and confidence-building.

These patterns highlight how similar educational constructs operate differently across cultural and institutional settings. The Chinese case illustrates a distinctively utilitarian and instructor-dependent satisfaction model.

Conclusion and Suggestions

This study identified the key drivers of course satisfaction and empirically validated a holistic instructional intervention among Chinese Drama and Film students. The baseline regression revealed that Perceived Usefulness,

Responsiveness, Empathy, and Course Content Quality significantly predicted satisfaction, whereas Course Design Quality and Self-efficacy did not exhibit direct effects in the static model. However, the implemented Instructional Design Intervention led to significant improvements across all seven variables, demonstrating that a comprehensive teaching strategy can activate even those factors not initially identified as primary predictors.

These findings confirm a distinct satisfaction model for arts students in the Chinese context, characterized by a strong emphasis on practical relevance and instructor support. The study successfully bridged theoretical frameworks from Barrera-Verdugo et al. (2022); Darawong and Widayati (2022) and Cheng (2020), offering an integrated perspective on how service quality, content value, and psychological resources collectively shape the learning experience.

Based on the empirical outcomes, the following recommendations are proposed for enhancing innovation and entrepreneurship education in comparable settings:

1. Enhance Instructor Responsiveness via Digital and Humanized Communication Channels

Instructor responsiveness significantly influenced the satisfaction of Drama and Film students. Universities should encourage instructors to adopt timely, multi-channel communication strategies, such as learning management systems, messaging platforms, and consultation hours, to effectively address students' questions, feedback, and emotional needs. This involves not only prompt replies but also meaningful, supportive responses that demonstrate attentiveness and care. Training and evaluation systems should incorporate responsiveness indicators, thereby promoting a culture of student-centered communication that contributes to an improved educational experience and overall satisfaction.

2. Improve Instructor Empathy through Personalized and Culturally Sensitive Pedagogies

Instructor empathy had a significant impact on satisfaction. Teaching staff should be encouraged to employ culturally sensitive and personalized pedagogical approaches that recognize students' diverse backgrounds, aspirations, and challenges. For Drama and Film students, this may include acknowledging the pressures of creative production, performance evaluation, and industry expectations. Professional development programs could focus on empathy-building skills, such as active listening, reflective feedback, and supportive scaffolding. These initiatives can strengthen teacher-student relationships and enhance classroom involvement.

3. Enhance Course Content Quality through Industry Alignment and Creative Inspiration

The impact of course content quality was notably positive, indicating that students value content that is coherent, intellectually challenging, and closely tied to real-world practice. Curriculum designers should refine the syllabus to incorporate industry-relevant case studies, cross-disciplinary projects, and collaborative tasks that encourage students to apply I&E concepts in authentic creative contexts (e.g., film production start-ups, digital media ventures). Partnerships with industry professionals and alumni can help ensure that teaching materials reflect current trends and practices. Regular content review and updates, informed by student feedback and labor market analysis, can enrich the relevance and innovativeness of the content.

4. Optimize Course Design Structure to Improve Clarity and Goal Orientation

While the quality of course design did not significantly predict satisfaction in the regression model, it still improved after the intervention, suggesting that students benefited from clearer structure and goal orientation. Course designers should articulate learning outcomes, assessment criteria, and weekly schedules with greater transparency, helping students understand what is expected of them and how their performance will be evaluated. Visual roadmaps, rubrics, and formative feedback cycles can support this clarity. These measures may raise

students' awareness of course progression, improve their ability to self-regulate their learning, and consequently enhance their sense of direction and control.

5. Strengthen Perceived Usefulness through Embedded Tools and Career Pathways

Perceived usefulness was identified as the most significant predictor of satisfaction. Innovation and entrepreneurship courses for Drama and Film majors should explicitly demonstrate how course content relates to career trajectories, such as scriptwriting, directing, production management, and digital content entrepreneurship. This can be achieved by integrating workshops on portfolio development, pitching, crowdfunding, and digital marketing into the course structure. Guest lectures, mentoring programs, and internships in creative industries can further reinforce the utility of I&E skills. By making career pathways visible and attainable, courses can help students form clearer professional plans and recognize the direct benefits of their learning, thus strengthening their engagement and satisfaction.

6. Boost Self-efficacy through Scaffolded Success Experiences and Peer Motivation

While Self-efficacy did not exhibit a significant effect in the regression model, the paired t-test results showed improvement after the intervention. This indicates that structured support can still enhance students' confidence in handling course demands. Instructors should design scaffolded assignments that gradually increase in difficulty, providing opportunities for early success and constructive feedback. Peer collaboration and mutual encouragement in group projects can also foster a supportive learning climate. Encouraging reflective practices, such as learning journals or post-project reviews, can help students recognize their own progress and internalize their capabilities, thus reinforcing Self-efficacy over the longer term and indirectly contributing to higher satisfaction.

Limitations and Future Research

This study offers insights into Chinese drama and film students' satisfaction with innovation and entrepreneurship (I&E) courses, yet several limitations constrain its generalizability. Conducted at a single public university in Hubei Province with a small, discipline-specific sample (n = 90), the findings may not extend to other fields or regions (Iacobucci & Micozzi, 2012). The reliance on self-reported data also risks biases such as social desirability and subjectivity (Darawong & Widayati, 2022). Design constraints include the short-term scope of a 10-week Instructional Design Intervention (IDI), which precluded analysis of long-term impacts (Barrera-Verdugo, 2023). Although international studies were referenced to provide contextual background, the present research did not perform statistical cross-cultural comparisons. Such analyses would require harmonized measurement instruments, matched constructs, and multi-country datasets to test measurement invariance. Future research may address this gap by developing unified instruments and collecting comparable data across cultural contexts.

Additionally, emerging determinants—such as digital access quality and platform interactivity—were not incorporated despite their post-pandemic relevance (Nguyen et al., 2024). Future studies should broaden samples across disciplines and regions, combine behavioral or qualitative data with self-reports, and adopt longitudinal designs to capture evolving satisfaction and entrepreneurial outcomes. Comparative analyses with other developing nations, such as Indonesia and Jordan, could further clarify the influence of cultural and institutional contexts (Ceberio et al., 2016; Alshurideh et al., 2021; Iacobucci & Micozzi, 2012).

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