

## Promoting Professional Identity and Cross-Cultural Understanding in Cabin Crew Education Through Instagram-Style Simulation Reports

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### Abstract

This study employs an action research method to examine the effectiveness of Instagram-style simulation reports in enhancing learning motivation, professional identity, and cross-cultural understanding among aviation service students. Twenty-three students from a university aviation service department (including two students with special learning needs) participated in two cycles of Look-Think-Act action research, engaging in Instagram posting tasks centered on role-playing and cultural themes. Students portrayed their ideal flight attendant roles by wearing professional attire for photographs and writing accompanying captions. In the second phase, they selected specific international routes and incorporated cultural hashtags to demonstrate cross-cultural service competencies. Quantitative results revealed mean scores of 4.18, 4.27, and 4.17 for learning motivation, professional identity, and cross-cultural understanding, all exceeding the 4-point threshold. Qualitative analysis identified a three-stage professional identity development process: surface attraction, operational awareness, and value internalization. The multimodal and interactive design effectively promoted student engagement, with special needs students demonstrating strong adaptability by overcoming traditional text-based barriers through visual expression. This research suggests that the cyclical refinement process of action research may enhance teaching effectiveness, and that Instagram simulation reports could promote professional identity and cross-cultural competency development. The findings provide empirical evidence for innovative and inclusive pedagogical approaches in aviation and vocational education. Future research could expand to diverse cultural backgrounds and institutional settings, incorporating AI tools for more objective learning behavior analysis.

*Keywords:* professional identity, cross-cultural understanding, aviation service education

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## Introduction

The core objective of aviation service education is to cultivate students' cross-cultural communication skills and professional competencies, as flight attendants function as critical intermediaries between airlines and international passengers, requiring high cultural sensitivity and adaptable service skills (Bennett, 2009). Following the recovery of the global aviation industry post-pandemic, route diversity and passenger culture have steadily increased, resulting in more complex service challenges (IATA, 2023). Action research, emphasizing iterative cycles of practice and reflection, has been extensively applied in vocational education to enhance students' professional identity and learning outcomes (Meihami & Werbińska, 2022).

However, traditional aviation service education still faces challenges, including limited language proficiency, insufficient learning motivation, and restricted cross-cultural understanding, which hinder some students from developing professional identity and intercultural skills (Perrodin et al., 2024). While social media presents innovative teaching opportunities that enhance student engagement and self-expression, there remains a gap in systematically applying such strategies for university-level aviation students, especially those with special learning needs, to improve learning efficacy (Ganjoo et al., 2021).

This study primarily employs an action research approach to investigate the effects of Instagram-style simulation reports on aviation students' learning motivation, professional identity, and cross-cultural understanding. Particular attention is given to the participation experiences of students with special learning needs. Through role-playing, cultural themes, and multimodal design, this study explores how these elements impact professional development and cross-cultural competency, aiming to provide an innovative, inclusive, and evidence-based teaching model that fosters diversity in aviation education (Aydin, 2019; Deci & Ryan, 2008; Yiu et al., 2022).

## Literature Review

### Learning Motivation Theory

Learning motivation critically influences student engagement and academic performance. Self-Determination Theory (SDT), proposed by Deci and Ryan (2008), identifies autonomy, competence, and relatedness as three fundamental psychological needs that foster intrinsic motivation. When educational environments satisfy these needs, students demonstrate increased engagement and sustained motivation. SDT has been widely applied in vocational education, with studies confirming that autonomy-supportive teaching strategies significantly enhance students' motivation and professional identity (Bui et al., 2017; Bureau et al., 2021). For students with limited language proficiency or learning difficulties, creative and inclusive learning environments are essential to boost participation and self-efficacy (Deci & Ryan, 2008). Emotional support from teachers and peers can alleviate anxiety in special needs students, improving their motivation and resilience. Inclusive education and diverse support systems have been shown to enhance the learning engagement and life quality of students with disabilities (Vasyukov et al., 2024).

### Creative Learning and Simulation-Based Teaching

Simulation-based learning is proven effective in vocational education for enhancing practical skills and professional identity. Role-playing and contextual simulations facilitate decision-

making and interaction in realistic settings, reinforcing motivation and confidence (Schunk, 2012). In aviation education, simulation trainings improve operational skills, decision-making, and situational awareness while reducing risks and costs (TEM Journal, 2023). The use of multimedia and visualization tools further stimulates interest and creativity, increasing student engagement (Ganjoo et al., 2021). This study employs Instagram-style simulation reports combined with multimodal expression and role-playing to demonstrate potential for promoting autonomous learning and professional identity. Students creatively use images and texts to express their understanding of occupational roles, thereby enhancing motivation and supporting multimodal approaches in vocational training.

### **Cross-Cultural Competence and Aviation Service**

Cross-cultural competence encompasses cultural awareness, emotional sensitivity, and behavioral adaptation, essential for high-quality aviation service (Gudykunst, 2005). Simulated cross-cultural scenarios, such as role-playing and cultural context simulations, effectively enhance cultural understanding, communication skills, and empathy among students (Wendorf Muhamad & Yang, 2019). Social media platforms like Instagram offer real-time interaction and cultural exchange, facilitating the development of language strategies, multi-modal expression, and intercultural communication skills (Alvarez Valencia & Benavides, 2019; Ganjoo et al., 2021). Therefore, this study integrates social media with simulation-based learning and designs cultural-themed tasks to promote students' comprehension, respect, and application of diverse cultural service concepts.

### **Application of Social Media in Education**

Social media's network characteristics and multimodal functions provide highly interactive and creative learning environments. Instagram notably increases student engagement and sense of community in digital courses (Ganjoo et al., 2021). Short videos and instant interaction strategies enhance learning time and outcomes (Song et al., 2022). As digital natives, Generation Z students are especially adept at adjusting to these platforms. Arnold and Paulus (2010) found that experiential learning via social media strengthens knowledge internalization and collaborative learning, fostering learning communities. This study applies this concept in vocational education, using Instagram simulation reports as innovative teaching media, aiming to create interactive learning environments aligned with digital natives' learning habits.

## **Research Method**

### **Research Design**

This study adopts Stringer's (2008) action research model, which consists of three iterative stages: Look, Think, and Act, to investigate the effects of Instagram-style simulation reports on aviation students' learning motivation, professional identity, and cross-cultural understanding. To enhance scientific rigor, mixed quantitative and qualitative methods were integrated. Two teaching cycles were conducted from September 2024 to January 2025, allowing continuous revision and improvement of instructional strategies.

### **Participants**

Participants included 23 aviation service students (13 females, 10 males) from a university, with an average age of 21 years. The cohort included two students with special learning needs

(one with a specific learning disability and one with autism spectrum disorder). To protect privacy during qualitative analysis, these students are referred to as Special Student 1 (SS1) and Special Student 2 (SS2). Aligned with Stringer's (2008) participatory principles, students acted as co-constructors of knowledge, with their feedback directly informing instructional adjustments.

## **Data Collection Instruments and Procedures**

### ***Look Phase***

Three scales measured student outcomes:

1. Learning Motivation assessed via Guay et al.'s (2000) Situational Motivation Scale, covering intrinsic and extrinsic motivation.
2. Professional Identity measured with an aviation service-specific scale adapted from Yu et al. (2021).
3. Cross-Cultural Understanding evaluated based on Chen and Starosta's (2000) Intercultural Sensitivity Scale.

Each scale comprised five items scored on a 5-point Likert scale from strongly disagree (1) to strongly agree (5). Surveys were administered anonymously post-instruction.

Students completed Instagram format simulation reports:

1. In the first cycle, students role-played as ideal flight attendants, wearing uniforms and posting photos with captions expressing their occupational perceptions and expectations.
2. In the second cycle, students selected flight routes (e.g., Japan, Middle East) and incorporated cultural hashtags (e.g., #ramadanservices) in posts to demonstrate multicultural service awareness.

These reports facilitated detailed analysis of students' learning trajectories and self-presentation.

### ***Think Phase***

1. Descriptive statistics (mean, SD, range) and internal consistency (Cronbach's  $\alpha$ ) were computed using Stata 17.0 to identify factors influencing motivation, identity, and cultural understanding, guiding qualitative inquiry (Stringer, 2008).
2. Braun and Clarke's (2006) six-step thematic analysis was employed, including data familiarization, coding, theme development, review, definition, and reporting. Emphasis was placed on SS1 and SS2's feedback and behavior observations. Student representatives participated in reflection meetings to ensure diverse perspectives. Triangulation of quantitative, qualitative, and classroom observations enhanced the validity and applicability of findings.

### ***Act Phase***

Teaching activities in the first cycle focused on enhancing students' intercultural sensitivity through multi-national flight scenarios, requiring Instagram posts portraying professional images and service concepts. In the second cycle, based on reflective feedback, cultural integration and innovative service design were emphasized. Students compared dietary habits,

etiquette, and service needs across different cultures to foster communication skills and empathy (Ganjoo et al., 2021).

To deepen professional identity, Instagram simulation scoring criteria were refined per student feedback. Classroom sessions incorporated professional language training, service demeanor, and workplace scenario simulations, encouraging internalization of professional roles.

Overall, the action process involved ongoing monitoring and iterative adjustments through student feedback, thematic analysis, and observations, ensuring teaching strategies adapt dynamically to meet learners' needs and embody the continuous growth ethos of action research cycles (Stringer, 2008).

## Results

### Quantitative Analysis

A total of 23 valid questionnaires were collected. The average scores for learning motivation, professional identity, and cross-cultural understanding were 4.18 (SD = 0.31), 4.27 (SD = 0.42), and 4.17 (SD = 0.39), respectively. The Cronbach's alpha values for the three dimensions were 0.62, 0.79, and 0.87, indicating good reliability for the professional identity and cross-cultural understanding scales (Guay et al., 2000; Yu et al., 2021). All scores exceeded 4, demonstrating a generally positive evaluation by students of the Instagram simulation report and a high level of learning acceptance.

Comparing the two teaching cycles, professional identity scores significantly improved in the second cycle, demonstrating the effectiveness of iterative instructional adjustments. Special needs students (SS1 and SS2) exhibited upward trends, especially in cross-cultural understanding, supporting the inclusive benefits of multimodal teaching (Rose & Meyer, 2002). An initially low score observed in the first cycle, linked to a lack of sufficient support for a special needs student, improved notably after targeted instructional support was provided, reflecting the positive impact of action research cycles on learning outcomes (Deci & Ryan, 2008).

### Qualitative Analysis

Thematic analysis following Braun and Clarke's (2006) six-phase procedure identified three core themes highlighting changes in students' motivation, professional identity, and intercultural understanding, supported by special student cases.

#### **Motivation: From Extrinsic to Intrinsic Engagement**

Students generally felt the Instagram simulation report offered a more engaging and creative learning experience, with feedback noting it was more enjoyable and motivating than traditional reports. This shift from extrinsic task completion to intrinsic self-driven engagement aligns with self-determination theory's internalization process (Ryan & Deci, 2020). The introduction of cultural-themed tasks in the second cycle reinforced professional commitment and responsibility by linking assignments to career aspirations (Cesario et al., 2022).

### **Professional Identity: Immersive Three-Stage Construction**

Students' professional identity development followed three phases:

1. Surface attraction, initially drawn by visible aspects like uniforms and service demeanor;
2. Operational awareness, understanding the technical skills and responsibilities involved in aviation service;
3. Value internalization, embracing service as a personal mission and core value.
4. This progression exemplifies the practice-reflection spiral model proposed by Kemmis et al. (2014). The second cycle's service presentation task accelerated students' shift from observation to enactment and internalization, deepening professional role awareness.

### **Cross-Cultural Understanding: From Knowledge to Empathic Action**

Beyond memorizing cultural facts such as dietary restrictions, students developed empathic, situational strategies to bridge communication gaps, for example using eye contact and smiles to overcome shyness. This movement from cultural cognition to cultural action supports Chen and Starosta's (2000) intercultural sensitivity model. Instagram's hashtag interactions (e.g., #ramadanservices) encouraged students to actively investigate cultural contexts, bolstering learner autonomy and cross-cultural agility.

### **Special Students Participation: Inclusive Practice of Action Research**

SS1 (learning disability) relied on peer and teacher support to complete visual tasks, expressing that photograph-based work was easier and more enjoyable. His work was adopted as a teaching exemplar in the second cycle, embodying the collaborative co-construction spirit of action research (Stringer, 2008).

SS2 (autism) utilized digital tools and structured steps to craft culturally themed posts, demonstrating digital media's potential to support learners balancing freedom with structure (Odom et al., 2010).

Both showed marked improvement in cross-cultural understanding and self-expression in the second cycle. Class observations and interviews highlighted the crucial roles of ongoing teacher-student interaction and peer support in fostering engagement (DuPaul et al., 2022). The iterative reflection and adjustment of the action research process ensured the inclusion of marginalized voices, affirming the empirical value of inclusive education.

## **Discussion**

### **Transformation of Learning Motivation in Action Research Cycles**

This study reveals that Instagram-style simulation reports, as a multimodal learning tool, effectively facilitate the internalization of students' learning motivation within Stringer's (2008) Look-Think-Act cyclical framework. Students shifted from passively completing assignments to actively exploring professional roles and self-realization, consistent with the psychological needs for autonomy, competence, and relatedness emphasized in Self-Determination Theory (Deci & Ryan, 2008).

Within the action cycles, continual reflection and adjustments led to higher levels of creativity and autonomy in the second cycle. Students proactively researched cultural variations in service contexts during hashtag assignments and demonstrated creative expressions of intercultural understanding. This transformation encapsulates the core spirit of action research: learning becomes more adaptive and generative through reflective practice and re-engagement.

### **Immersive Construction of Professional Identity**

Students' professional identity developed progressively through three phases: surface attraction, operational awareness, and value internalization. The role-playing facilitated by the Instagram simulation created a low-risk, highly contextualized environment for professional exploration, enabling students to safely embody the professional identity without the anxiety or apprehension possible in traditional internships.

This immersive process helped students move from visual interest to conceptual understanding, culminating in an internalized professional value system. Notably, students with special learning needs exhibited distinct learning pathways and modes of expression, demonstrating that multimodal teaching provides effective inclusive support, fostering professional identity construction. Reflective feedback further deepened students' commitment to their vocational mission, shifting focus from external appearance to internalized values.

### **Contextual Development of Cross-Cultural Understanding**

Instagram's interactive hashtag feature offers unique educational value in cross-cultural learning. Students not only acquired cultural knowledge but also developed practical empathic strategies, such as using smiles to bridge language barriers and adapting tone according to passenger cultural backgrounds. This capacity to translate knowledge into action aligns with the knowledge internalization and situated practice pathways detailed in action research theories (Kemmis et al., 2014).

Additionally, the digital platform's algorithmic content push created an implicit curriculum effect, exposing students to broader cultural content and prompting active inquiry into hashtag conventions (e.g., #ramadanservices). This phenomenon suggests new pedagogic approaches for integrating digital media in vocational education.

### **Limitations and Future Directions**

The study's limitations include a small sample size (n=23) and reliance on some self-reported data, which may introduce subjectivity. Future research should extend to diverse nationalities and institutions to evaluate the generalizability of this teaching method. Integrating AI and digital tools for analyzing Instagram interaction analytics could provide more objective insights into learning motivations.

### **Conclusion**

This study preliminarily validated the educational effectiveness of Instagram-style simulation reports in aviation service education through an action research approach. The findings indicate that this instructional strategy supports improvements in students' learning motivation, professional identity, and cross-cultural understanding. Qualitative evidence further highlights how elements of autonomy, creative expression, and role-playing within the curriculum

enhance learner engagement. The multimodal and interactive design especially provides additional support and participation opportunities for students with special learning needs, helping to overcome traditional language and expression barriers.

However, limitations such as a small sample size and the study's timeframe necessitate further investigation across diverse backgrounds, larger samples, and prolonged instructional practice. Future research is recommended to expand to students from different nationalities or institutions and to incorporate AI and other digital tools for objective analysis of learning behaviors and interaction data. Developing fair evaluation metrics for visual and creative outputs will also help recognize diverse modes of learner performance.

Overall, this study contributes a novel, inclusive teaching model grounded in empirical evidence for aviation and wider vocational education. It encourages future research to continue exploring the potential and challenges of digital native pedagogies, thereby advancing innovative and equitable educational development.

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