



Exploring the Lived Experiences of Aviation Student-Pilots at an Aerospace University in Lapu-Lapu City, Philippines

Author/s: Jan Calvin Ordiz Montero, Eric June A. Dico, Gerhianne Buhler, Ace Gabriel Arce, Eugene E. Toring, Kimberly N. Toring, Nonita Legaspi, Jimmy B. Maming, Jhoselle Tus

Affiliation: Indiana Aerospace University

Abstract

This qualitative research examines the difficulties encountered by aviation student pilots at a prominent aerospace institution, using Interpretive Phenomenological Analysis (IPA) and a purposive sample of five participants. Thematic analysis of semi-structured interviews revealed five central themes: (1) Balancing Academic Work and Flight Training, highlighting the time management difficulties; (2) Coping Strategies for Academic Performance, focusing on techniques such as taking breaks, seeking spiritual guidance, and using visual aids; (3) Resources and Opportunities for Student-Pilots, emphasizing improvements in submission procedures and communication channels; (4) Collaboration with Industry Partners and Alumni, stressing the value of networking for job applications; and (5) Effective Mentorship Traits, underlining the importance of mentors who are disciplined, present, and supportive. The study's trustworthiness is enhanced by data triangulation, which includes participant observations, and reflexivity efforts that ensure research integrity. The findings underscore the interplay of academic duties, flight training, and support systems in shaping the aviation education experience. The research highlights the significance of time management, coping mechanisms, tailored opportunities, collaboration, and impactful mentorship for a successful aviation education. These findings contribute to a deeper understanding of the holistic development of aviation student pilots, focusing on strategies to overcome challenges and improve learning outcomes.

Keywords: *aviation, student-pilot experiences, flight training*

Introduction

Aviation generally refers to the operation of aircraft for air transportation (Dafadar, 2021). As noted by Uniting Aviation (2018), aviation provides the world's fastest global transportation network, crucial for international business, economic growth, job creation, and facilitating trade and tourism. Aviation courses typically involve hands-on training, such as flight simulation, aircraft maintenance, and internships with airlines or aviation organizations, which allow students to apply theoretical knowledge in real-world scenarios (Ng, 2023). As demand for air travel grows, the aviation industry faces evolving challenges and opportunities.

Luciani et al. (2022) report that most student pilots struggle with their heavy academic workload. Emotional factors are also significant in aviation performance, affecting cognition and attention (Lee et al., 2015; Jeon, 2016). The combination of emotional stress and coping strategies can significantly influence students' focus, especially during flight training. Many student pilots begin their journey with enthusiasm, but the path to earning their wings is often filled with stressors, including academic pressure, financial worries, and the responsibility of flying safely (AAG Affairs, 2023).

Understanding the sources of stress and effective coping mechanisms can enhance student performance (Avi, 2020). Despite existing research on various aspects of aviation education, there is a gap in qualitative studies that explore the emotional, psychological, and social factors that affect student pilots (Smith, 2019; Jones et al., 2020). Additionally, there is limited research on teacher training that addresses the stress involved in teaching aviation and equips instructors with the skills to respond to students' emotional needs (Poulou & Denham, 2022).

This study aims to explore the lived experiences of aviation student pilots at an aerospace university and develop an intervention plan based on the findings.

Research Question/ Objectives

This study aimed to answer the following questions:

1. What are the lived experiences of aviation student pilots at the aerospace university?
2. What challenges have these aviation student pilots encountered?
3. How do these challenges affect their academic performance?
4. What opportunities exist to address the challenges faced by these students?

Methodology

Research Design

This study adopted a qualitative approach, specifically using Interpretive Phenomenological Analysis (IPA). Interpretive Phenomenological Analysis (Smith et al., 2009) was chosen as the framework for data collection and analysis. This methodology is designed to explore individuals' lived experiences and how they make sense of them. IPA combines phenomenological (focus on lived experiences), hermeneutic (researcher's interpretation to gain insight into participants' experiences), and ideographic (focus on in-depth analysis of specific participants) elements (Finlay, 2011; Smith, 2011b). In IPA, researchers aim to understand how participants interpret their own experiences, a process referred to as a 'double hermeneutic' (Smith, 2011a: p.10). IPA encourages detailed analysis of data from one or more participants to capture a deep understanding of their experiences.

Participants/Respondents

This study involved five participants. The selection criteria were as follows: 1) participants had to be currently enrolled as aviation students, 2) they needed to have prior experience as student pilots, 3) they must actively engage in aviation coursework and flight training, and 4) they should be willing to share their experiences through interviews.

Procedure

Purposive sampling was employed to select participants, ensuring the inclusion of individuals with the relevant characteristics needed for this study (Nikolopoulou, 2023). This sampling method allowed the researchers to focus on participants who could provide meaningful insights into the research questions.

The primary method of data collection was semi-structured interviews, which allowed for open-ended questions and flexible interaction between the researcher and participant. Audio recordings of the interviews were made, with the participants' consent, to ensure accurate transcription and analysis. Participants were given the option to opt out of being recorded, and the interview protocol was thoroughly explained to them beforehand.

Data Analysis

Once data collection was complete, the researchers applied thematic analysis to interpret the qualitative data. This process was driven by the study's research aims and questions. Thematic analysis followed several key stages: first, the recorded interviews were transcribed to capture participants' responses accurately. The researchers then familiarized themselves with the data by reviewing the transcripts repeatedly, allowing for an in-depth understanding of the content.

Next, the data were systematically coded, identifying meaningful units that were grouped into themes. The coding process combined both deductive methods (based on the research questions) and inductive methods (allowing for new themes to emerge from the data itself). After coding, the themes were organized into a cohesive narrative that conveyed the essence of the participants' lived experiences. This narrative provided comprehensive insights into the emotional, psychological, and educational aspects of the student pilots' training journey.

Results

In examining the lived experiences of aviation student pilots, several important themes emerged from the interviews, offering a deeper understanding of their educational journeys. These themes cover: Balancing Academic Responsibilities and Flight Training; Coping Mechanisms for Academic Standing; Opportunities and Resources for Student-Pilots; Collaboration with Industry Partners and Alumni Networks; and Impactful Traits of Mentors. Together, these themes provide valuable insights into how academic and flight training commitments, alongside support systems, shape the experiences of aspiring aviators.

Theme 1: Balancing Academic Responsibilities and Flight Training

Managing both academic responsibilities and flight training is a significant challenge for student pilots. This theme delves into how participants handle the dual pressures of coursework and flight practice.

The participants highlighted the importance of time management in balancing their academic and flight training duties. Participant A stated:

"Time management is what's really important."

Participant B explained their approach, saying:

"I try my best to complete my activities before my flights, so when I return, I won't fall behind."

These statements emphasize the need for effective scheduling to fulfill both academic and flight training requirements. As noted by Affairs, A.C. (2023), a major challenge faced by many student pilots is managing both their academic tasks and the demands of flight training. The contrast between classroom learning and practical flying can be overwhelming at times.

Theme 2: Coping Mechanisms for Academic Standing

This theme explores the strategies employed by students to maintain a good academic standing while simultaneously engaging in flight training. Participants shared various coping mechanisms that helped them manage academic stress.

Participant A emphasized the importance of self-care:

"Always take a rest and break."

Participant E shared a more personal approach:

"I bring my friends along... we go to church together, light candles, and ask for guidance."

Participant C described their coping method:

"My way of coping is to make my notes visible, like putting them on the walls so I can constantly memorize and stay familiar with the current or updated flying procedures."

According to Aina (2020), a significant number of students (52.6%) turn to spiritual practices, such as praying or meditating, to alleviate academic stress while accepting their challenges.

Theme 3: Opportunities and Resources for Student-Pilots

This theme investigates the opportunities and resources that contribute to the success of student pilots. Participants reflected on the support systems available at the university that help them in their training.

Participant B suggested:

"The school could find better ways for students in flight training to submit their activities."

Participant C added:

"Students should speak up if they have concerns with the administration. If not the admin, they can reach out to the SAO, guidance, or even the dean in worst-case scenarios."

Barile (2021) argues that for equitable access to education, schools must ensure that resources are equally available to all students.

Theme 4: Collaboration with Industry Partners and Alumni Networks

This theme explores the role of collaboration with industry partners and alumni in enhancing the professional journey of student pilots. Participants discussed the importance of networking for career success.

Participant D emphasized the value of networking:

"Networking can really help with our job applications. It's not easy for us after graduation, so building connections is essential to achieving our career goals."

Participant E also shared:

"From my own experience, seniors are always willing to help us juniors, even after they have graduated or found jobs. We seek their guidance to understand what we should do."

Smith (2023) stresses the critical role of industry partnerships and alumni networks in helping aviation graduates transition smoothly into the workforce, with collaboration being a consistent theme for optimizing career prospects.

Theme 5: Impactful Traits of Mentors

This theme focuses on the qualities that make mentors influential in shaping the students' educational experiences. Participants reflected on the characteristics of their mentors that had a positive impact on their development.

Participants spoke highly of mentors who were consistently present in their roles. Participant A noted:

"They are always present in their work and in flying and instructing students."

Participant B expressed appreciation for their mentors' support:

"They help me push forward to overcome the hardships I've faced."

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