# CHAPTER 7

## Forensic Accounting Curriculum and Pedagogies

*"Most of the institutions responsible for educating professionals fail to evolve as rapidly as professional practice itself."*

- *American Accounting Association*

### 7.1. Introduction

This chapter delves into the development and evolution of curriculum and pedagogical approaches for FAE in India. The escalating demand for FA prompts a pivotal question regarding the optimal curriculum content for this discipline. Further, as FAE continues to gain importance in Indian universities and colleges, this chapter presents a detailed analysis of this development by collecting empirical data from FAPs and academicians in the field of FA.

A number of survey questions aroused focusing on those topics that emerged as pivotal in the preliminary literature review such as that of Hopwood et al. (2012), Crumbley et al. (2013), Kramer et al., (2017), Zeytinog˘lu and Anadolu (2020) and Ebaid (2022). Dwelling on these threads, it has become the need of the hour to gather focused insights on crucial educational content as one of the major challenges for developing FAE is the lack of standard curriculum and pedagogy (Rezaee et al., 2015). India is no exception to this hurdle. Although, the accounting curricula consider the importance of FA, the existing curricula is not sufficient according to the demand from society (Rezaee & Burton, 1997; Rezaee, et al., 2015). Therefore, a total of 31 topics drawn from the extant literature were provided to the respondent groups. The respondents were asked to evaluate these topics and teaching methods. They provided their insights by ranking each item on a five-point Likert scale, ranging from 'strongly disagree' to 'strongly agree'. This approach not only gauges the perceived importance and effectiveness of various educational components but also highlights the preferences and trends among those directly involved in the field. However, it is pertinent to note that the selection of topics is also contingent upon the intended audience, desired level of understanding, the delivery time available, and part time or full-time course material (Brooks & Labelle, 2006).

This chapter aims to synthesize these findings to propose a refined curriculum that aligns well with the dynamic demands of the FA profession. The results are particularly significant for India, where the need for skilled FAPs is growing rapidly. By integrating theoretical insights with the perceptions from experts, the study seeks to offer recommendations that can enhance the effectiveness of FAE. This will contribute to the preparation of students to enter the demanding market of FA and enable them to tackle the complexities of financial investigations.

## 7.2. Curriculum for FAE

Table 7.1 provides an insight on various topics in FA within the Indian context. It uses mean values ($\bar{x}$) and SD to reveal the perceived importance and variability of these topics among the respondents. The introduction of the National Education Policy (NEP) in India, which emphasizes a modern, holistic, and multi-disciplinary approach to education, is pertinent to this analysis.

**Table 7.1: Perception on the Curriculum for FAE**

| Sl. No | Topics | Mean | SD | Rank |
|---|---|---|---|---|
| 1 | Theory and methodology of fraud examination | 4.050 | 1.077 | 9 |
| 2 | Types of fraud (e.g., bankruptcy, computer, management, employees) | 4.075 | 1.048 | 6 |
| 3 | Fundamentals of fraud | 4.080 | 1.006 | 5 |
| 4 | Anti-fraud training | 4.065 | 1.026 | 7 |
| 5 | Modelling and discounting future damages | 3.850 | 1.103 | 26 |
| 6 | Effective report writing | 3.935 | 1.031 | 19 |
| 7 | Elements of fraud: pressure, opportunity, and rationalization | 4.000 | 1.072 | 14 |
| 8 | Cyber crime | 3.985 | 1.022 | 16 |
| 9 | Internal control evaluation | 4.055 | 1.029 | 8 |
| 10 | Financial reporting process and analysis including analytical review procedures | 4.095 | 1.016 | 4 |
| 11 | Principles of ethics and corporate code of conduct | 3.955 | 1.105 | 17 |
| 12 | Legal elements of fraud | 4.035 | 1.036 | 12 |
| 13 | Knowledge of the legal system | 3.935 | 1.121 | 20 |
| 14 | Bribery and corruption investigation including resolution of allegation of misconduct | 3.895 | 1.036 | 23 |
| 15 | Civil and criminal fraud statutes and regulations | 3.785 | 1.036 | 30 |
| 16 | Corporate governance and compliance with applicable laws and regulations | 3.925 | 1.063 | 21 |
| 17 | Statistical sampling | 3.905 | 1.050 | 22 |
| 18 | Document collection and analysis | 3.990 | 1.069 | 15 |
| 19 | Rules of evidence and reporting standards for FA | 4.035 | 1.079 | 13 |
| 20 | Forensic accounting techniques | 4.175 | 1.079 | 1 |
| 21 | Techniques in locating hidden assets | 4.040 | 1.120 | 11 |
| 22 | Professional standards on FA | 4.115 | 1.059 | 2 |
| 23 | Techniques for investigating conflicts of interest | 4.110 | 1.004 | 3 |
| 24 | Business valuation and cost estimates | 3.860 | 1.104 | 25 |
| 25 | Professional interview skills and legal aspects of interviews | 3.940 | 1.118 | 18 |
| 26 | Psychology of information gathering | 3.825 | 1.151 | 27 |

| | | | | |
|---|---|---|---|---|
| 27 | Expert testimony and expert witness techniques | 3.810 | 1.160 | 28 |
| 28 | Litigation and consulting techniques | 3.760 | 0.967 | 31 |
| 29 | Big data analysis | 3.870 | 1.081 | 24 |
| 30 | Trial and cross-examination | 3.790 | 1.036 | 29 |
| 31 | Professional organizations (ICAI, ICMAI, ACFE etc.) and careers in FA | 4.045 | 1.027 | 10 |

**Source: Author's Computation**

Table 7.1 reveals that among the 31 topics, the highest-ranked topic is "forensic accounting techniques" ($\bar{x}$ = 4.47, SD = 1.079). This is in alignment with NEP's focus on skill-based education and employability. Rezaee et al. (1992) also assert that effective FAE requires not only students but also faculty to be well-versed in both FA techniques and the industry itself. Further, the respondents ranked highly the topic "Professional standards on forensic accounting" ($\bar{x}$ = 4.41, SD = 1.059) followed by "techniques for investigating conflicts of interest" ($\bar{x}$ = 4.4, SD = 1.004), "financial reporting process and analysis" ($\bar{x}$ = 4.39, SD = 1.016) and "fundamentals of fraud" ($\bar{x}$ = 4.38, SD = 1.006). Rezaee et al. (2015) further found similar finding where respondents acknowledged the importance of fundamentals of fraud for FAE curriculum. Furthermore, respondents ranked high the topic "anti-fraud training" ($\bar{x}$ = 4.36, SD = 1.026) reflecting the need for continuous education and training to keep up with evolving fraud tactics. It also advocates that universities and colleges should incorporate internship programs in collaboration with industry professionals to provide students with hands-on training. If internships are not feasible, institutions can organize workshops on FA, inviting experts in the field to deliver practical knowledge to students.

In this regard. an academician commented that,

*"Hands-on training in FA is crucial because it transforms theoretical knowledge into practical skills, preparing students to handle real-world financial investigations effectively."*

Furthermore, "internal control evaluation" is also ranked high by the respondents ($\bar{x}$ = 4.35, SD = 1.029). Mastery of this topic is crucial for maintaining the integrity and reliability of financial statements, which is essential for the credibility of financial reporting. Ramaswamy (2005), Daniels et al., (2013), Rezaee et al., (2015) and Bhasin (2016) also found that the knowledge of "internal control system" is crucial for FAP and should be included in FAE curriculum.

However, topics like “litigation and consulting techniques”, “civil and criminal fraud statutes and regulations”, “trial and cross-examination”, “expert testimony and expert witness techniques” and “psychology of information gathering” were perceived as less important than other topics. These rankings reveal that respondents prioritize practical and foundational skills/knowledge over specialized and advanced techniques in the FA curriculum. This result thus focuses on equipping students with essential competencies that are more universally applicable in FA roles.

The high-ranked topics of the FA curriculum further reinforces alignment with the NEP in several ways. The focus on practical techniques and professional standards supports the objective of NEP aimed at making education more relevant to the job market. This agreement with NEP 2020 accentuates the relevance of these topics in creating a modern, skill-oriented educational framework that prepares students for professional challenges. The inclusion of topics on professional ethics and standards resonates with emphasis on moral and ethical education of NEP. Furthermore, the interdisciplinary approach, integrating knowledge from various fields such as big data analysis, cybercrime, and internal control evaluation, enhances FAE.

Given that academicians are continuously engaged in teaching FA to students and FAPs are actively involved in the practice of FA, differences of opinion regarding the importance of each topic can arise based on their respective expertise and understanding. To explore these perspectives, Table 7.2 presents a comparative analysis of the perceived importance of various FA topics as rated by academicians and FAPs. Higher mean scores and lower rankings signify greater perceived importance within each group.

**Table 7.2: Mann–Whitney U-test Results Exhibiting Differences in Rating of Importance of Curriculum Content Between FAPs and Academicians**

| Sl. No | Topics | FAP | | Academician | | Z Value | P Value |
|---|---|---|---|---|---|---|---|
| | | Mean | SD | Mean | SD | | |
| 1 | Theory and methodology of fraud examination | 3.97 | 0.888 | 4.13 | 0.990 | -3.505 | 0.006 |
| 2 | Types of fraud (e.g., bankruptcy, computer, management, employees) | 4.12 | 0.683 | 4.03 | 1.029 | -2.695 | 0.061 |
| 3 | Fundamentals of fraud | 4.11 | 0.692 | 4.05 | 0.955 | -2.504 | 0.051 |
| 4 | Anti-fraud training | 4.13 | 0.742 | 4.00 | 0.938 | -9.571 | 0.000 |
| 5 | Modelling and discounting future damages | 3.88 | 0.889 | 3.82 | 0.992 | -1.245 | 0.073 |
| 6 | Effective report writing | 4.01 | 0.700 | 3.86 | 0.969 | -8.571 | 0.000 |
| 7 | Elements of fraud: pressure, opportunity, and rationalization | 4.03 | 0.804 | 3.97 | 0.998 | -1.312 | 0.071 |
| 8 | Cyber crime | 4.05 | 0.667 | 3.92 | 0.980 | -7.817 | 0.000 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 9 | Internal control evaluation | 4.12 | 0.706 | 3.99 | 0.968 | -8.382 | 0.000 |
| 10 | Financial reporting process and analysis including analytical review procedures | 4.12 | 0.585 | 4.07 | 1.040 | -5.876 | 0.000 |
| 11 | Principles of ethics and corporate code of conduct | 3.95 | 0.862 | 3.96 | 1.033 | -1.224 | 0.082 |
| 12 | Legal elements of fraud | 4.04 | 0.748 | 4.03 | 0.985 | -1.342 | 0.080 |
| 13 | Knowledge of the legal system | 4.04 | 0.778 | 3.83 | 1.066 | -8.61 | 0.000 |
| 14 | Bribery and corruption investigation including resolution of allegation of misconduct | 3.97 | 0.738 | 3.82 | 0.952 | -8.503 | 0.000 |
| 15 | Civil and criminal fraud statutes and regulations | 3.86 | 0.854 | 3.71 | 0.999 | -7.958 | 0.000 |
| 16 | Corporate governance and compliance with applicable laws and regulations | 3.89 | 0.755 | 3.96 | 1.046 | -4.371 | 0.000 |
| 17 | Statistical sampling | 3.93 | 0.753 | 3.88 | 0.997 | -2.531 | 0.063 |
| 18 | Document collection and analysis | 4.05 | 0.759 | 3.93 | 1.009 | -7.933 | 0.000 |
| 19 | Rules of evidence and reporting standards for FA | 4.03 | 0.786 | 4.04 | 1.042 | -2.791 | 0.092 |
| 20 | FA techniques | 4.16 | 0.696 | 4.19 | 1.104 | -4.501 | 0.000 |
| 21 | Techniques in locating hidden assets | 3.97 | 0.885 | 4.11 | 1.071 | -3.264 | 0.001 |
| 22 | Professional standards on FA | 4.18 | 0.562 | 4.05 | 1.103 | -6.895 | 0.000 |
| 23 | Techniques for investigating conflicts of interest | 4.14 | 0.674 | 4.08 | 0.965 | -1.206 | 0.082 |
| 24 | Business valuation and cost estimates | 3.78 | 0.869 | 3.94 | 1.054 | -3.175 | 0.001 |
| 25 | Professional interview skills and legal aspects of interviews | 4.05 | 0.747 | 3.83 | 1.074 | -8.725 | 0.000 |
| 26 | Psychology of information gathering | 3.96 | 0.818 | 3.69 | 1.074 | -8.797 | 0.000 |
| 27 | Expert testimony and expert witness techniques | 3.83 | 0.902 | 3.79 | 1.096 | -2.438 | 0.043 |
| 28 | Litigation and consulting techniques | 3.97 | 0.888 | 3.69 | 0.996 | -7.607 | 0.000 |
| 29 | Big data analysis | 4.12 | 0.683 | 3.76 | 1.033 | -8.399 | 0.000 |
| 30 | Trial and cross-examination | 4.11 | 0.692 | 3.71 | 0.992 | -8.342 | 0.000 |
| 31 | Professional organizations (ICAI, ICMAI, ACFE etc.) and careers in FA | 4.13 | 0.742 | 3.95 | 1.001 | -9.075 | 0.000 |

**Source: Author's Computation**

Table 7.2 presents a comparative analysis of the curriculum topics for FAE from the perspectives of FAPs and academicians. FAPs place the highest importance on "professional standards on forensic accounting," "forensic accounting techniques," "techniques for investigating conflicts of interest," "Anti-fraud training" and "Professional organizations (ICAI, ICMAI, ACFE etc.) and careers in forensic accounting" These preferences suggest a strong emphasis on the practical and procedural aspects of FA.

However, academician prioritise the topics for FAE curriculum such as "forensic accounting techniques," "theory and methodology of fraud examination," "techniques in locating hidden assets," "techniques for investigating conflicts of interest," and "financial reporting process and analysis including analytical review procedures". The preference for these topics over other shows their perspective on the importance of integrating

foundational knowledge with practical competencies. The selection of these topics for FAE curriculum is a balanced educational approach aimed at equipping students with both theoretical insights and practical skills, fostering well-rounded FAPs capable of adapting to professional demands. Rezaee et al. (2015), have also emphasized the importance of a balanced FA curriculum that integrates both theoretical knowledge and practical skills.

The Mann-Whitney U-test results reveal significant differences between FAPs and academicians for several curriculum topics. For instance, "anti-fraud training" ($p$ = 0.000) and "internal control evaluation" were rated significantly higher by FAPs, indicating their emphasis on proactive measures against fraud. A significant discrepancy also exists for "forensic accounting techniques" ($p$ = 0.000), demonstrating that FAPs place more emphasis on hands-on technical skills compared to academicians. Significant differences were also found in the ratings for "cybercrime" ($p$ = 0.000) and "knowledge of the legal system" ($p$ = 0.000), underscoring the FAPs' need for expertise in legal and cyber environments pertinent to financial crimes. These findings align with Uyar and Çavuşoğlu (2020), who also reported considerable differences between the perceptions of FAPs and academicians regarding the importance of hands-on and cognitive skills in FAE. These findings pronounce the distinct priorities shaped by their roles in practice and academia, reflecting their differing approaches to curriculum development. However, the results also indicated no statistically significant differences between FAPs and academicians for certain curriculum topics, including "principles of ethics and corporate code of conduct," "legal elements of fraud," "techniques for investigating conflicts of interest," and "rules of evidence and reporting standards for forensic accounting," as evidenced by $p$-values greater than 0.05. This alignment advocates a shared understanding between both groups of the essential nature of these topics in FAE. Despite their distinct roles, both FAPs and academicians acknowledge the fundamental importance of ethical conduct, legal proficiency, and investigative rigor in preparing students for the challenges of FA. Such agreement underlines the recognition that these elements are vital not only for ensuring professional integrity but also for building a strong, foundational skill set applicable to a wide range of real-world scenario which will bridge the gap between academic knowledge and practical application.

**Table 7.3: Mann–Whitney U-test Results Exhibiting Gender-based Differences in Rating Importance of Curriculum Content**

| Topic | Male | | Female | | Mann Whitney U Test | |
|---|---|---|---|---|---|---|
| | *Mean* | *SD* | *Mean* | *SD* | *Z Value* | *P Value* |
| Theory and methodology of fraud examination | 4.02 | 1.061 | 4.09 | 1.160 | -0.607 | 0.544 |
| Types of fraud (e.g., bankruptcy, computer, management, employees) | 4.07 | 1.022 | 4.02 | 1.169 | -1.928 | 0.054 |
| Fundamentals of fraud | 4.08 | 0.978 | 4.03 | 1.130 | -1.934 | 0.053 |
| Anti-fraud training | 4.07 | 1.000 | 3.97 | 1.139 | -2.676 | 0.007 |
| Modelling and discounting future damages | 3.86 | 1.079 | 3.73 | 1.200 | -2.635 | 0.008 |
| Effective report writing | 3.94 | 1.004 | 3.87 | 1.151 | -2.044 | 0.041 |
| Elements of fraud: pressure, opportunity, and rationalization | 4.00 | 1.043 | 3.91 | 1.199 | -2.287 | 0.022 |
| Cyber crime | 3.99 | 0.991 | 3.90 | 1.154 | -2.19 | 0.028 |
| Internal control evaluation | 4.06 | 1.002 | 3.97 | 1.147 | -2.38 | 0.017 |
| Financial reporting process and analysis including analytical review procedures | 4.09 | 0.981 | 4.03 | 1.172 | -1.815 | 0.069 |
| Principles of ethics and corporate code of conduct | 3.95 | 1.080 | 3.88 | 1.220 | -2.002 | 0.045 |
| Legal elements of fraud | 4.04 | 1.007 | 3.93 | 1.156 | -2.637 | 0.008 |
| Knowledge of the legal system | 3.96 | 1.091 | 3.79 | 1.240 | -2.933 | 0.003 |
| Bribery and corruption investigation including resolution of allegation of misconduct | 3.91 | 1.008 | 3.75 | 1.141 | -2.905 | 0.004 |
| Civil and criminal fraud statutes and regulations | 3.80 | 1.080 | 3.65 | 1.207 | -2.614 | 0.009 |
| Corporate governance and compliance with applicable laws and regulations | 3.92 | 1.038 | 3.85 | 1.177 | -2.026 | 0.043 |
| Statistical sampling | 3.91 | 1.020 | 3.79 | 1.176 | -2.453 | 0.014 |
| Document collection and analysis | 4.00 | 1.037 | 3.87 | 1.200 | -2.639 | 0.008 |
| Rules of evidence and reporting standards for FA | 4.03 | 1.051 | 3.99 | 1.210 | -1.583 | 0.113 |
| FA techniques | 4.17 | 1.041 | 4.13 | 1.257 | -1.28 | 0.201 |
| Techniques in locating hidden assets | 4.03 | 1.093 | 4.00 | 1.252 | -1.435 | 0.151 |
| Professional standards on FA | 4.13 | 1.017 | 4.01 | 1.239 | -2.357 | 0.018 |
| Techniques for investigating conflicts of interest | 4.11 | 0.972 | 4.02 | 1.144 | -2.429 | 0.015 |
| Business valuation and cost estimates | 3.85 | 1.077 | 3.79 | 1.224 | -1.74 | 0.082 |
| Professional interview skills and legal aspects of interviews | 3.95 | 1.092 | 3.83 | 1.225 | -2.638 | 0.008 |
| Psychology of information gathering | 3.84 | 1.125 | 3.73 | 1.263 | -2.203 | 0.028 |
| Expert testimony and expert witness techniques | 3.81 | 1.135 | 3.73 | 1.275 | -1.669 | 0.095 |
| Litigation and consulting techniques | 3.76 | 1.070 | 3.68 | 1.175 | -2.109 | 0.035 |
| Big data analysis | 3.88 | 1.055 | 3.75 | 1.190 | -2.544 | 0.011 |
| Trial and cross-examination | 3.79 | 1.106 | 3.69 | 1.188 | -2.455 | 0.014 |
| Professional organizations (ICAI, ICMAI, ACFE etc.) and careers in FA | 4.05 | 0.994 | 3.93 | 1.168 | -2.581 | 0.010 |

**Source: Author's Computation**

The results of the Mann-Whitney U Test in Table 7.3 however reveal statistically significant differences in the perception of certain topics between male and female

respondents including the topics like "anti-fraud training", "knowledge of the legal system", and "professional standards on forensic accounting". Male respondents rated topics related to technical standards and investigative techniques higher, while female respondents tended to place more emphasis on the theoretical and educational aspects of fraud examination. These differences could indicate varying priorities, possibly influenced by different perspectives on the practical versus theoretical approach to FA.

### 7.3. Pedagogical Approaches for FAE

Despite the growing demand for FA skills in the job market (Van Akkeren et al., 2013; Hegazy et al., 2017), there is a noticeable gap between the competencies of students and the expectations of employers for FA domain (Chen & Van Akkeren, 2012; Tiwari & Debnath, 2017). Addressing this gap requires identifying effective pedagogical approaches for FAE (DiGabriele, 2012; Lehmann, 2015). Table 7.4 presents the mean, SD, and rank of various pedagogical approaches as identified from the literature, providing insights into the most effective methods according to respondents' opinions. This information is crucial for aligning educational practices with industry requirements, thereby enhancing the relevance and impact of FAE programs.

**Table 7.4: Perception on the Pedagogical Approaches for FAE**

| Pedagogical Approaches | Mean | SD | Rank |
|---|---|---|---|
| Case studies | 4.045 | 1.101 | 2 |
| Problem-based learning | 4.070 | 1.095 | 1 |
| Moot court activities | 3.630 | 1.130 | 12 |
| Research projects and presentations | 3.755 | 1.109 | 9 |
| Textbook and supplemental materials | 3.640 | 1.122 | 11 |
| Guest lecturers | 3.815 | 1.096 | 8 |
| E-learning | 3.545 | 1.125 | 13 |
| Data analytics software | 3.935 | 1.098 | 7 |
| Role-playing | 3.670 | 1.148 | 10 |
| Digital forensic software | 3.985 | 1.084 | 5 |
| Internships | 4.005 | 1.125 | 4 |
| Computer forensics lab | 4.020 | 1.060 | 3 |
| Simulations | 3.965 | 1.081 | 6 |

**Source: Author's Computation**

The findings reveal a strong preference for practical, hands-on learning methods. Problem-based learning emerged as the most effective approach ($\bar{x}$ = 4.07, SD = 1.095). This emphasis of the pedagogy on engaging students in real-world problems fosters critical thinking and the practical application of FA principles, aligning with the findings from Issa (2023) who posits that hands-on approaches are essential for equipping

students with the necessary competencies to detect and prevent fraud. Case studies approach ranked second in effectiveness for FA pedagogy. This pedagogy enables students to dissect and solve complex scenarios that mirror real-life FA challenges; an approach also advocated by Alshurafat et al. (2023). Further, computer forensics labs ($\bar{x}$ = 4.02, SD = 1.06) are the third most favoured method for FAE. These labs offer students invaluable hands-on experience essential for modern FA practices. This approach supports Rezaee et al.'s (1992) assertion on the importance of integrating technological skills into FAE to meet the evolving demands of the FA field. This also pedagogy also necessitates appropriate infrastructure to accommodate the required equipment and resources. Moreover, internships ($\bar{x}$ = 4.005, SD = 1.125) are highly valued as the fourth most effective pedagogical method.

"*Graduation provides the foundational knowledge, but it's the hands-on experience gained through internships that truly prepares one for the complexities of FA.*" An academician commented.

"*While academic grounding is crucial, the real-world application of FA principles during internships can often bridge the gap between theory and practice effectively*." A FAP further acknowledged.

The findings are attuned with the study of Seda and Kramer (2015), who also advocate for experiential learning as a key component of FAE. In contrast, the least preferred pedagogical approaches are “e-learning” ($\bar{x}$ = 3.545, SD = 1.125), “moot court activities” ($\bar{x}$ = 3.63, SD = 1.13), and “textbook and supplemental materials” ($\bar{x}$ = 3.64, SD = 1.122). The least perceived importance on these pedagogies may reflect a perceived inadequacy in fostering the applied, experiential learning critical for FA proficiency. E-learning, while convenient, may lack the depth of interaction required to fully grasp complex investigative processes. Moot court activities, though useful in understanding legal procedures, may not be considered as directly applicable without complementary real-life FA experience. Furthermore, reliance on textbook and supplemental materials might be viewed as outdated, failing to effectively bridge the gap between theoretical knowledge and the dynamic nature of FA practices, which requires up-to-date, real-world engagement. Further, there are dearth of text books on FA in the Indian context.

Table 7.5 provides an in-depth comparative analysis of the perceived effectiveness of various pedagogical approaches in FAE, drawing on the perspectives of both FAPs and academicians. The data is meticulously organized to include the mean scores, SD, and ranks for each pedagogical method, revealing significant differences in preferences and perceived effectiveness between the two groups. Moreover, the data underlines the need for curriculum developers to address these discrepancies by incorporating a mix of pedagogical approaches that cater to the diverse expectations of both FAPs and academicians. The balanced approach is crucial for fostering a well-rounded educational experience that not only prepares students for the immediate demands of the profession but also equips them with the critical thinking and research skills necessary for long-term career development (Issa, 2023).

**Table 7.5: Mann–Whitney U-test Results Exhibiting Differences in Rating of Importance of Pedagogical Approaches between FAPs and Academicians**

| **Pedagogical Approaches** | **FAPs** | | | **Academicians** | | | **Mann Whitney U Test** | |
|---|---|---|---|---|---|---|---|---|
| | *Mean* | *SD* | *Rank* | *Mean* | *SD* | *Rank* | *Z Value* | *P Value* |
| Case studies | 4.10 | 0.765 | 1 | 3.99 | 1.312 | 3 | -6.387 | 0.000 |
| Problem-based learning | 4.09 | 0.803 | 2 | 4.05 | 1.293 | 1 | -1.787 | 0.058 |
| Moot court activities | 3.55 | 1.049 | 11 | 3.71 | 1.191 | 11 | -3.649 | 0.000 |
| Research projects and presentations | 3.66 | 1.013 | 9 | 3.85 | 1.189 | 9 | -3.332 | 0.001 |
| Textbook and supplemental materials | 3.51 | 1.064 | 13 | 3.77 | 1.172 | 10 | -2.666 | 0.008 |
| Guest lecturers | 3.77 | 0.985 | 8 | 3.86 | 1.172 | 8 | -4.942 | 0.000 |
| E-learning | 3.54 | 1.056 | 12 | 3.55 | 1.147 | 13 | -2.041 | 0.093 |
| Data analytics software | 4.01 | 0.862 | 5 | 3.87 | 1.231 | 7 | -7.876 | 0.000 |
| Role-playing | 3.66 | 1.016 | 10 | 3.68 | 1.233 | 12 | -2.128 | 0.091 |
| Digital forensic software | 4.02 | 0.852 | 4 | 3.96 | 1.234 | 5 | -2.048 | 0.054 |
| Internships | 4.00 | 0.901 | 6 | 4.01 | 1.284 | 2 | -2.131 | 0.097 |
| Computer forensics lab | 4.06 | 0.823 | 3 | 3.98 | 1.206 | 4 | -5.343 | 0.048 |
| Simulations | 3.99 | 0.869 | 7 | 3.94 | 1.216 | 6 | -2.372 | 0.069 |

**Source: Author's Computation**

The findings in Table 7.5 reveal the perspective of FAPs and academicians on the importance of pedagogical approaches and highlights convergences and divergences in their perceptions. The top-rated pedagogical approaches for FAPs include "case studies", "problem-based learning", "computer forensics lab", "digital forensic software", and "data analytics software". These preferences by the FAPs indicate a strong emphasis on

practical, hands-on methods that simulate real-world scenarios and provide experiential learning opportunities, which are essential in FA.

For academicians, the highest-rated approaches are "Problem-based learning", "Internships", "Case studies", "Computer forensics lab", and "Digital forensic software". This result advocate that academicians value both structured problem-solving and opportunities for students to gain industry exposure, indicating a balanced approach between classroom learning and practical experience.

The results of the Mann-Whitney U Test reveal statistically significant differences between FAPs and academicians in their perceptions of several pedagogical methods. Pedagogies like, "case studies" and "data analytics software" are rated significantly higher by FAPs, possibly due to their reliance on practical and data-driven decision-making in fraud detection. Conversely, "guest lecturers" and "research projects and presentations" are rated more highly by academicians, who may value the theoretical perspectives and knowledge dissemination offered by expert-led sessions. However, there are also several pedagogical approaches where no significant difference was observed between the two groups, such as "problem-based learning", "digital forensic software", "internships", and "simulations".

An academician commented, "*There is a strong need for collaboration between professional bodies/professional firms with the educational institutions to provide real case scenarios.*"

The consensus on these methods exhort that both FAPs and academicians recognize their importance in FAE. The findings of the study corroborate the findings of Sack, (2000), Modugu and Anyaduba (2013) and Ramadhan (2021) who also found experimental and signature pedagogies essential for FAE.

Additionally, the following Mann Whitney test results are stratified by gender to explore whether perceptions vary significantly between male and female respondents.

**Table 7.6: Mann–Whitney U-test Results Exhibiting Gender-based Differences in Rating Importance of Pedagogical Approaches**

| Sl. no | Pedagogical Approaches | Male | | Female | | Mann Whitney U Test | |
|---|---|---|---|---|---|---|---|
| | | *Mean* | *SD* | *Mean* | *SD* | *Z Value* | *P Value* |
| 1 | Case studies | 4.20 | 1.061 | 3.89 | 1.270 | -2.338 | 0.019 |
| 2 | Problem-based learning | 4.22 | 1.059 | 3.94 | 1.250 | -2.124 | 0.034 |
| 3 | Moot court activities | 3.75 | 1.124 | 3.62 | 1.158 | -1.009 | 0.313 |
| 4 | Research Projects and Presentations | 3.87 | 1.096 | 3.73 | 1.181 | -0.937 | 0.349 |
| 5 | Textbook and Supplemental materials | 3.75 | 1.118 | 3.63 | 1.147 | -0.998 | 0.318 |
| 6 | Guest lecturers | 3.95 | 1.083 | 3.73 | 1.151 | -2.031 | 0.042 |
| 7 | E-learning | 3.70 | 1.121 | 3.37 | 1.118 | -2.834 | 0.005 |
| 8 | Data analytics software | 4.10 | 1.085 | 3.74 | 1.128 | -3.769 | 0.000 |
| 9 | Role-playing | 3.82 | 1.141 | 3.55 | 1.164 | -2.361 | 0.018 |
| 10 | Digital forensic software | 4.15 | 1.062 | 3.80 | 1.156 | -3.532 | 0.000 |
| 11 | Internships | 4.15 | 1.103 | 3.89 | 1.216 | -2.449 | 0.014 |
| 12 | Computer forensics lab | 4.18 | 1.044 | 3.86 | 1.113 | -3.526 | 0.000 |
| 13 | Simulations | 4.12 | 1.060 | 3.78 | 1.155 | -3.389 | 0.001 |

**Source: Author's Computation**

Table 7.6 affirms that the top-rated pedagogical approaches for male respondents which include "Problem-based learning", "Case studies", and "Computer forensics lab". These preferences reflect a strong emphasis on experiential learning methods which are crucial for developing practical problem-solving skills in FA. For female respondents, the highest-rated methods were "Problem-based learning", "Case studies", and "Internships. This not only indicates a similar value placed on experiential learning but also highlights a preference for gaining real-world exposure through internships. Further, the Mann-Whitney U Test results reveal significant gender-based differences in the perceptions of several pedagogical approaches. For instance, "E-learning" was rated significantly lower by female respondents compared to males, which may reflect a greater skepticism towards online learning's effectiveness in delivering the practical skills needed for FA. "Data analytics software" and "Digital forensic software" were rated significantly higher by male respondents, indicating that they may place more emphasis on technical and software-based tools for enhancing investigative capabilities. The significant difference in ratings for "role-playing" advocate that male respondents may view simulated interactions as more useful for understanding real-world investigative dynamics compared to their female counterparts. These findings stressed the importance of adopting a diverse pedagogical approach to accommodate varying preferences and to ensure that both theoretical and practical elements are effectively covered. While hands-on and experiential learning methods are preferred across genders, there are nuances in how technical tools and direct professional experiences are valued, indicating the need

for a well-rounded curriculum that balances digital proficiency, practical engagement, and theoretical understanding to meet the diverse learning needs in FAE.

Furthermore, the differences among the six experience groups are examined below to determine whether any significant differences exist regarding their preferences for pedagogical approaches.

**Table 7.7: Kruskal-Wallis Test Results Exhibiting Experience-based Differences in Rating of Importance of Pedagogical Approaches**

| Pedagogies | Experience | Mean Rank | χ2 | P Value |
|---|---|---|---|---|
| Case studies | 0-5 | 302.65 | 28.326 | 0.000 |
| | 6-10 | 276.03 | | |
| | 11-15 | 347.77 | | |
| | 16-20 | 345.52 | | |
| | 21-25 | 350.75 | | |
| | 26=< | 375.50 | | |
| Problem-based learning | 0-5 | 315.38 | 35.567 | 0.000 |
| | 6-10 | 262.28 | | |
| | 11-15 | 354.80 | | |
| | 16-20 | 373.12 | | |
| | 21-25 | 354.53 | | |
| | 26=< | 347.71 | | |
| Moot court activities | 0-5 | 328.38 | 17.427 | 0.004 |
| | 6-10 | 285.28 | | |
| | 11-15 | 372.71 | | |
| | 16-20 | 366.56 | | |
| | 21-25 | 335.81 | | |
| | 26=< | 326.15 | | |
| Research Projects and Presentations | 0-5 | 307.42 | 23.835 | 0.000 |
| | 6-10 | 278.76 | | |
| | 11-15 | 376.30 | | |
| | 16-20 | 369.48 | | |
| | 21-25 | 344.60 | | |
| | 26=< | 330.38 | | |
| Textbook and Supplemental materials | 0-5 | 351.43 | 25.269 | 0.000 |
| | 6-10 | 287.18 | | |
| | 11-15 | 384.73 | | |
| | 16-20 | 327.41 | | |
| | 21-25 | 368.40 | | |
| | 26=< | 302.21 | | |
| Guest lecturers | 0-5 | 311.72 | 38.552 | 0.000 |
| | 6-10 | 257.73 | | |
| | 11-15 | 334.16 | | |
| | 16-20 | 386.64 | | |
| | 21-25 | 367.59 | | |
| | 26=< | 346.71 | | |
| E-learning | 0-5 | 301.28 | 24.850 | 0.000 |
| | 6-10 | 271.40 | | |
| | 11-15 | 352.25 | | |
| | 16-20 | 358.10 | | |
| | 21-25 | 368.28 | | |
| | 26=< | 348.02 | | |
| Data analytics software | 0-5 | 303.94 | 32.330 | 0.000 |

| | | | | |
|---|---|---|---|---|
| | 6-10 | 266.59 | | |
| | 11-15 | 376.35 | | |
| | 16-20 | 366.98 | | |
| | 21-25 | 343.77 | | |
| | 26=< | 348.00 | | |
| Role-playing | 0-5 | 334.84 | 14.100 | 0.015 |
| | 6-10 | 287.99 | | |
| | 11-15 | 370.42 | | |
| | 16-20 | 342.44 | | |
| | 21-25 | 326.04 | | |
| | 26=< | 353.16 | | |
| Digital forensic software | 0-5 | 304.02 | 31.108 | 0.000 |
| | 6-10 | 269.71 | | |
| | 11-15 | 367.38 | | |
| | 16-20 | 373.37 | | |
| | 21-25 | 340.80 | | |
| | 26=< | 349.72 | | |
| Internships | 0-5 | 302.60 | 38.197 | 0.000 |
| | 6-10 | 283.44 | | |
| | 11-15 | 360.53 | | |
| | 16-20 | 407.27 | | |
| | 21-25 | 331.41 | | |
| | 26=< | 321.51 | | |
| Computer forensics lab | 0-5 | 302.68 | 42.565 | 0.000 |
| | 6-10 | 267.69 | | |
| | 11-15 | 385.93 | | |
| | 16-20 | 382.75 | | |
| | 21-25 | 349.73 | | |
| | 26=< | 319.19 | | |
| Simulations | 0-5 | 297.92 | 21.230 | 0.001 |
| | 6-10 | 290.02 | | |
| | 11-15 | 356.22 | | |
| | 16-20 | 380.44 | | |
| | 21-25 | 343.10 | | |
| | 26=< | 333.15 | | |

**Source: Author's Computation**

The above findings for the Kruskal-Wallis ($\chi 2$) test show significant differences in preferences for all pedagogical approaches across different experience levels. It has been observed that more experienced professionals prefer "case studies" ($\chi 2$=28.326) and "Problem-based learning" ($\chi 2$=35.567), advocating a greater need for real-world application and critical engagement as they progress in their careers. The declining preference for "textbook and supplemental materials" ($\chi 2$=25.269) among experienced respondents reveals a need for adaptable learning that addresses complex, evolving industry challenges. The high ranking of "guest lectures" ($\chi 2$=38.552) for those with 16-20 years of experience emphasize the value of industry insights at mid-career stages. There is significant increment of perceived importance with the increase in experience for the pedagogy like "case studies", "problem-based learning", guest lecturers", "e-learning", data analytics software", "digital forensic software", "computer forensics lab"

and “simulations”. It can be observed that there is a shift on the perceived importance for the pedagogies towards methods that offer practical insights and hands-on experience as the respondents gain more experience.

## 7.4. Conclusion

The chapter emphasized the importance of both practical and foundational topics in FAE, with a strong emphasis on "forensic accounting techniques" aligning with the NEP's focus on skill-based learning. FAPs prioritize procedural standards and industry-linked competencies, while academicians emphasize a balance of foundational knowledge and practical tools, indicating a need for an integrated curriculum. The findings of the study align closely with the theoretical perspectives discussed in Chapter 2, particularly signature pedagogy theory and experiential learning theory. The identified signature pedagogies for FAE which include problem-based learning, case studies, computer forensics labs and internship, reveal the hallmark practices that define and shape the professional preparation of future FAPs.

These pedagogies are inherently experiential which provide students with active learning opportunities that mirror the challenges faced in actual FA field. The use of experiential methods, such as computer forensics labs, problem-solving exercises, and internship is consistent with Kolb's experiential learning theory, which emphasizes learning through direct experience and reflection. By integrating these pedagogies into FAE, the curriculum ensures that students develop both the technical expertise and the professional mindset required to thrive in the field.