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Guideline to the Development of Accounting Students' Skills in the Digital Age in Guangxi

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Abstract: The objectives of this research were: 1) to determine essential competencies for accounting students to succeed in the digital economy. and 2) to propose a comprehensive guideline for enhancing the accounting curriculum and teaching methodologies in Guangxi, focusing on four key aspects: data processing skills, innovation skills, communication and interpersonal skills, and accounting professional ethics. The study sample consisted of 217 senior-year accounting students in Guangxi, selected through a stratified average sampling method. A questionnaire survey served as the primary research instrument, with data analyzed using frequency, percentage, mean, and standard deviation. Findings revealed that students prioritized competencies in the following order: innovation skills for creativity and adaptability, communication and interpersonal skills for collaboration, professional ethics for trust and compliance, and data processing skills for effective technology use and data management. A comprehensive guideline proposed targeted programs to enhance data processing skills, modern teaching methods to foster innovation, group, and extracurricular activities to improve communication and interpersonal skills, and a comprehensive ethics program incorporating case studies. Regular updates to teaching methods were also recommended to align with industry needs, ensuring students are well-prepared for success in the digital economy.

Keywords: Guideline to the development of accounting students, Data processing skills, Innovation skills, Communication and interpersonal skills, Accounting professional ethics.

1. Introduction

The accounting profession plays a pivotal role in economic activities in the digital age but is undergoing significant transformation due to globalization and advancements in digital technology and artificial intelligence. These developments have reshaped industry demands, requiring accountants to adapt to automation and acquire new skills beyond traditional accounting knowledge. Accounting students, as the future of the profession, must be equipped with essential competencies such as data processing, innovation, communication, interpersonal skills, and professional ethics. However, many universities continue to rely on traditional teaching methods, which fail to prepare students for the evolving workforce.

Guangxi's integration into the national push for digital economic development highlights the urgency of these reforms. Automation has positioned data processing as a core skill for financial decision-making, while innovation is crucial for regional economic competitiveness. As a hub for cross-cultural collaboration with ASEAN, Guangxi also emphasizes communication and interpersonal skills, and increasing demands for transparency underscore the importance of professional ethics. Strengthening the cultivation of these competencies among accounting students is essential for supporting Guangxi's economic growth and enhancing the accounting profession. This study examines strategies for developing these skills to prepare accounting talent for the challenges and opportunities of the digital era.

2. Literature Review

2.1 Accounting skills in the digital age

The Competency Framework issued by the Association of Chartered Certified Accountants (ACCA) in 1998 requires accountants to possess a variety of competencies such as accounting professional ethics, skills to provide advice, data processing, and innovation. The Competency Framework issued in 2020 still mentions accounting professional ethics, digital data and technology, consulting and advisory, strategy and innovation as competencies similar to those mentioned in 1998.

According to the 2019 edition of the International Education Declaration Manual issued by the International Accounting Education Standards Board (IAESB), accounting talents should have professional skills such as communication and interpersonal, accounting professional ethics as auxiliary skills for their own development.

The American Institute of Certified Public Accountants (AICPA) and the United Kingdom's Institute of

Chartered Management Accountants (CIMA) jointly published the Global Chartered Management Accountant (CGMA) Professional Competency Framework (2019 edition) proposed five competencies, including professional skills, business skills, interpersonal skills, leadership skills, and digital skills.

In the China Management Accounting Professional Competency Framework compiled by the Chinese Institute of Certified Public Accountants in 2019, it is proposed that management accounting talents should possess professional and technical competencies and comprehensive competencies, as well as comply with the requirements of the Code of Accounting Professional Ethical Behavior of the profession. Professional and technical competence and comprehensive competence consist of multiple dimensions, with innovation and leadership belonging to comprehensive competence, of which leadership contains communication skills within it.

The Capability Framework of China's Chief Accountant (CFO) classifies the capabilities that chief accountants should have in performing their duties into four categories: ethical compliance skills (including integrity, etc.), professional skills (data processing skills, information disclosure skills, etc.), organizational skills (communication skills, innovation skills, etc.), and business skills.

Yang Zheng & Yin Junming & Song Yaqin (2012) used a questionnaire analysis concluded that accountants consider accounting professional ethics to be very important, followed by relevant analytical skills, accounting skills and teamwork skills.

Li Yahong & Duan Guizhu (2019) used a questionnaire to survey 79 employers, and the results of the survey showed that the respondents believed that the skills to deal with interpersonal relationships, innovation and other skills are what the vast majority of employers need accounting students to master.

Li Huan, Li Jianxin and Liu Nan (2023) proposed that the development of numerical intelligence requires accountants to be innovative and learn to use professional knowledge and numerical intelligence information to make reasonable feedback for new things and new phenomena.

Ma Liren, Ran Xia (2023) proposed that enterprises put forward clear requirements for the comprehensive quality skills of accounting personnel, which requires practitioners should have good innovation, communication and expression.

The definitions of accounting competence put forth by various scholars reflect the evolving nature of the profession in the context of both the era of big data and the intelligence-driven digital age. The digital era, characterized by rapid technological advancements and the proliferation of big data, underscores the need for accountants to adapt to new challenges and competencies. This article seeks to explore how both frameworks—those grounded in big data and those rooted in intelligence—can guide the competency development of Guangxi accounting students. Given that scholars and organizations have different interpretations of accounting competence, this article synthesizes the competency requirements for accounting students in the digital era into four key categories:

Data Processing Skills: With the rise of big data and technological advancements, a critical competency for accountants is the skills to process and analyze large volumes of data. This competency aligns with the digital skills emphasized in contemporary frameworks and involves tasks such as data collection, data analysis, and data cleansing. Effective data processing enables accountants to derive valuable insights and make informed decisions, a skill indispensable in the digital era.

Innovation Skills: The digital era demands that accountants not only apply existing knowledge but also innovate and adapt to emerging technologies and methodologies. Innovation is highlighted across numerous frameworks as a vital competency, enabling accountants to develop new solutions to meet the challenges of an evolving financial landscape. Accountants must be prepared to embrace new tools and approaches to address the dynamic needs of the profession.

Communication and Interpersonal Skills: Communication, leadership, and teamwork are central to all frameworks. In the digital era, accountants must collaborate across departments and manage relationships within and outside their organizations. Clear and effective communication of complex financial data is essential, as accountants increasingly work with cross-functional teams and stakeholders. Strong interpersonal skills are critical for facilitating collaboration, fostering leadership, and ensuring that financial information is accessible and understandable.

Accounting Professional Ethics: Regardless of the technological advancements in the profession, accounting professional ethics remains a cornerstone of the accounting competency framework. Accountants must uphold integrity and adhere to ethical standards, ensuring transparency and account skills in their work. In an environment where data-driven decisions are becoming the norm, maintaining professional ethics is essential to safeguarding the trust and reliability of financial reporting.

These competencies reflect the demands of the digital age and are crucial for preparing future accounting professionals to succeed in a technology-driven landscape. By incorporating these skills into educational frameworks, accounting programs can equip students with the necessary tools to thrive in an increasingly

complex and data-centric professional environment.

2.2 Data processing skills

The digital age places greater demands on accounting professionals, and accounting students and professionals must be proficient in data processing skills, particularly in data collection, analysis, and cleansing. Lu Anjing (2024) emphasizes three related essential competencies: data collection, which involves accurately gathering the data needed for a task; data analysis, which focuses on applying appropriate methods to identify financial risks and provide timely management insights; and data cleansing, which is the skills to filter out erroneous or irrelevant data to retain accurate and valuable information.

JinXin (2024) argues that finance professionals should shift to the role of data miners and interpreters, using advanced financial analytics tools to extract meaningful insights from big datasets that can help organizations grow. The role of data miner and interpreter mentioned by the authors corresponds to the skills to collect and analyze data. Similarly, Tian Guangda (2018) emphasized that accountants need to acquire data processing skills in addition to traditional accounting knowledge in order to effectively manage and analyze large amounts of data.

The data collection, data cleansing, and data analysis mentioned above are based on traditional accounting knowledge, and a series of work around the data, a process collectively known as data processing, which is a key skills for modern accounting professionals to better serve management and decision-making.

2.3 Innovation skills:

Zhang Zheng & Shao Minghui & Li Nan & Liu Xiaodong (2019) By analyzing the composition of innovation skills of accounting undergraduate students, it is pointed out that the innovation spirit of current accounting graduates is not high, and the innovation spirit is an important driving force to promote innovation skills. Enhancing the innovation skills of accounting undergraduate students is the key to cultivating accounting innovative talents. In the process of cultivating the innovation skills of accounting students, it is necessary to focus on cultivating the skills of students to solve common problems by using innovative methods, so as to help students better adapt to the development of the modern accounting industry.

Yang Wenyun and Li Man (2014) pointed out that with the rapid development of the economy and the constant changes in the accounting industry, cultivating accounting talents with innovative skills has become a core task in higher education. By analyzing the research results of experts and scholars, it is proposed that the core characteristics of innovation skills in the accounting profession include the skills to solve problems with innovative methods, the skills to cope with uncertainty, and the skills to adapt and lead the development of the industry.

Li Huan, Li Jianxin & Liu Nan (2023) suggests that the current training of accounting talents exists, for example, the insufficient application of digital intelligence technology, the assessment standard of innovation skills is not clear and many other problems, resulting in the training of accounting talents is difficult to meet the needs of the new economic environment. The development of digital intelligence requires accounting talents to have innovation skills. Colleges and universities should accelerate the reform and upgrading of the education and training mechanism of professional talents, cultivate accounting talents with innovation skills, and realize the goal of cultivating accounting innovative talents to meet the needs of the times.

Innovation skills is crucial to the development of individuals, society and the country, and accounting innovation skills is based on the development of innovation skills, which is mainly discussed in this paper, including the skills to solve problems with innovative methods, the skills to cope with uncertainty, as well as the skills to adapt to and lead the development of the industry. In the digital era, many new things will emerge, and cultivating the innovation skills of accounting students can not only help students adapt to the professional changes, but also is the need of the development process of accounting education, and is the inevitable requirement of the development of the country.

2.4 Communication and interpersonal skills

Jiao Ruilin (2023) mentioned that the work needs to collaborate with various departments and colleagues, and effective communication can improve the efficiency of the work, so accountants should enhance communication and interpersonal skills.

Zhang Aihong (2023) believes that in the current era, people have more opportunities to communicate with each other, so having good language expression skills has become a basic skills necessary for current talents. Language expression skills is one of the basic qualities that college students should have, and it is also one of the basic assessment criteria in the process of recruiting talents by enterprises.

Li Yahong, Yin Guizhu (2019) used a questionnaire to survey 79 employers and the results of the survey showed that the vast majority of employers believe that the skills to deal with interpersonal relationships is one

of the competencies that accounting students should be expected to have.

Teamwork is the collaboration of multiple people to accomplish a task, with an emphasis on coordination among team members. The process of teamwork cannot be separated from interpersonal communication, and language skills are the basis of communication. Therefore, teamwork, language expression and interpersonal skills are interconnected and can be summarized as communication and interpersonal skills, which are crucial for accounting students, especially in the digital age where communication with clients and departments is frequent. Therefore, strong communication and interpersonal skills are among the competencies that accounting students need to possess in this era.

2.5 Accounting professional ethics

The National Standard for Teaching Quality of Undergraduate Professional Classes in General Institutions of Higher Education issued by the Ministry of Education of China in 2018 lists the "Accounting Professional Ethics" knowledge module as a core course for accounting majors. In 2023, China's Ministry of Finance issued the Code of Professional Ethics for Accountants, which consists of "three firms and three guards", i.e., "adhering to integrity and abiding by the law", "adhering to the standards and abiding by responsibilities and dedication", "adhering to learning and abiding by innovation", and "adhering to the principles of integrity and innovation.", "adhere to the study, abide by the right and innovative". As an accounting student, you should memorize the contents of accounting professional ethics.

Wu Qiong, Yao Xiaoju, and Liu Jinfang (2024) pointed out that the current colleges and students do not pay enough attention to integrity education and accounting professional ethics. Through the survey, more than 85% of students believe that integrity is the core quality of accounting practitioners, but only 14% of students have a positive attitude towards the current integrity education. Integrity is the primary content of accounting professional ethics, the cornerstone of maintaining the healthy development of the accounting professional ethics, and one of the core elements of personal quality.

He Xuefeng, Yang Yuehan and Yu Hanxiang (2023) suggest that there are still some problems in the accounting profession in terms of professional ethics, and from the external factors, it is mainly due to the lack of an effective mechanism of "other discipline", which refers to the external system, supervision and environment to discipline individual behavior. constraints on individual behavior. At the same time, Li Feifan (2017) pointed out that in order to better develop accounting professional ethics, students should be exposed to and understand the relevant laws and regulations in the stage of academic education, which will help them to establish a sense of compliance, and then comply with the regulations in the process of practicing in the future.

In the digital age, accounting workers will come into contact with more data and customer information, in order to ensure the smooth operation of accounting work and the privacy of customer information, accounting workers must be memorizing with the content of accounting professional ethics. At the same time, according to the above scholars' viewpoints, the factors affecting accounting professional ethics are mainly the accountants' own factors and the external factors derived from relevant laws and regulations. Being a qualified accountant requires integrity and compliance with relevant laws and regulations. A person's accounting professional ethics cannot be formed in one day, so before accounting students enter the workplace, schools and teachers should strengthen the accounting professional ethics education for students.

2.6 Current situation of accounting students' skills development

Zhang Yingming & XuChen (2023) studied the issue of cultivating professional competence of undergraduate accounting talents in the era of digital economy, pointing out that the rapid development of information technology has brought unprecedented challenges to accounting education, which has to keep up with the development of informationization and market demand. Through the study of accounting groups at home and abroad, three major trends in the development of the competence of accounting professionals were found:

1. A shift from focusing on technical skills (hard skills) to emphasizing soft skills such as communication and interpersonal.
2. Increased emphasis on the impact of accounting professional ethics on accounting behavior.
3. Increasing emphasis is being placed on numerical competencies, including data-processing skills, as a core component of accounting expertise, emphasizing the need for schools to strengthen training in this area.

These three trends have similarities with the accounting competencies of communication and interpersonal skills, accounting professional ethics, and data-processing skills mentioned above.

Wang Shuiyu and Wang Honglei (2023) emphasized the problem of weak language expression skills among college students, a problem that negatively affects their personal development. Language expression

skills is an important part of communication skills, which affects the establishment and development of interpersonal relationships. Good language expression skills can help individuals communicate their thoughts and feelings clearly and accurately, thus facilitating effective communication. Long Yongjun (2022) suggests that nowadays, accounting crimes and offenses are frequent in society, and colleges and universities, as the cradle of cultivating accounting talents, should strengthen the accounting professional ethics in the teaching process and help students to establish good accounting professional ethics.

Zhang Qingyu (2019) pointed out that with the development of social economy and the progress of information technology, higher education has the mission of cultivating innovative talents. However, current accounting teaching often focuses too much on professional knowledge and operational skills, which leads to insufficient innovation skills of students and makes it difficult to adapt to the current complex accounting environment and changes in the financial market. It is of great significance for colleges and universities to cultivate the innovation skills of accounting students. Innovation skills is the key to contemporary economic and social development, and having innovation skills can help students improve their competitiveness and adaptability in their future careers.

The Talent Training Program of Guangxi Institute of Finance and Economics 2021 aims to cultivate comprehensively developed accounting majors, and the curriculum emphasizes such skills as innovation and teamwork skills, as well as fostering students who speak honesty and have accounting professional ethics to create an all-round accounting major. Among them, the spirit of innovation has been explained accordingly above, while the team skills can reflect a person's skills of communication and interpersonal interaction from the side, because the team skills is more than one person working together, and this process requires communication and exchange between people.

The above is the current status of the research on the four competencies of accounting skills focused on in this article: data processing skills, innovation skills, communication and interpersonal skills, and accounting professional ethics.

4. Methodology and Procedures

3.1 The Population and Sample

The Population

The subjects were 500 accounting students in their senior year of university study in Guangxi

The Sample Group

According to Krejcie and Morgan's sample table, the sample group of this study was 217 accounting students in their senior year of university study in Guangxi. This study used stratified average sampling method to investigate the fourth-year accounting majors in Guangxi.

3.2 Research Instruments

The questionnaire design is based on four aspects of cultivating accounting students' skills :1) data processing skills, 2) innovation skills, 3) communication and interpersonal skills, and 4)accounting professional ethics.

The questionnaire is divided into two parts:

Part 1: Basic information. Academic record and student gender.

Part 2: Investigation into the Distinctive Skill Development of Accounting Major Students in Guangxi. This section includes a total of 30 questions, categorized into four key areas: data processing skills, innovation skills, communication and interpersonal skills, and accounting professional ethics. Each category consists of seven questions, the purpose is to assess the skills of accounting students in the process of growth and to understand the training of related schools.

1. Pre-Investigation Stage

In this stage, the researcher will refer to existing studies to develop the items in the questionnaire and consult the mentor for advice. (IOC=0.67)

2. Pilot Testing Phase

A pilot test will be administered to 50 students prior to the main survey. Data from the pilot test will be entered into data analysis software to assess the validity of the study and ensure the accuracy of data collection.

Reliability analysis: Assessed using Cronbach's alpha coefficient, which should be greater than 0.7. After testing, the Cronbach's alpha coefficient is 0.908, which is in line with the requirements.

3. Main Investigation Phase

Using stratified average sampling method, the finalized questionnaire was distributed to a larger sample

of 500 students through online survey software, where respondents were surveyed and participants were informed of the purpose of the survey.

3.3 Data Collection

In order to collect data related to this study, the researcher took the following approach:

Collecting responses from participants. After the respondents have completed the questionnaire the online survey software automatically recovers and returns it to the researcher, who exports the data and excludes invalid responses.

3.4 Data Analysis

Use descriptive statistical data to analyze the questionnaire, including frequency, mean, percentage, and standard deviation.

4. Results of Analysis

The researcher distributed questionnaires to 217 students. A total of 217 questionnaires were collected with a recovery rate of 100%.

4.1 Frequency and percentage analysis of respondents' personal information

The analysis results of the personal information of the respondents, classified by gender, GPA. The researcher presented the data by frequency and percentage.

Table 4.1 Number of people and percentage of respondents (n=217)

Items	Category	Frequency	Percentage
GPA	4.0	25	11.5
	3.0-3.99	90	41.5
	2.0-2.99	96	44.2
	Below2.0	6	2.8
	Total	**217**	**100**
Gender	Male	52	24
	Female	165	76
	Total	**217**	**100**

According to Table 4.1, the distribution of respondents in terms of GPA is 25 or 11.5% with a GPA of 4.0, 90 or 41.5% with a GPA of 3.0-3.99, 96 or 44.2% with a GPA of 2.0-2.99, and 6 or 2.8% with a GPA of less than 2.0. Of the respondents, 165 (76%) were female and 52 (24%) were male.

Table 4.2 There are four dimensions of mean and standard deviation of accounting skills in digital era for accounting students in Guangxi (n=217)

No.	Dimension	M	S.D.	Level	Rank
1	Data Processing skills	3.24	0.94	high	4
2	Innovation skills	3.24	0.86	high	3
3	Communication and Interpersonal skills	3.46	0.93	high	2
4	Accounting Professional ethics	3.63	0.85	high	1
	Total	3.39	0.90	high	

According to Table 4.2, we found that Guangxi accounting students' characteristics on the four dimensions were at a high level (M = 3.39, S.D. = 0.89). According to the results of this study, it was found that accounting professional ethics (M = 3.63, S.D. = 0.85) was the highest, followed by communication and interpersonal skills (M = 3.46, S.D. = 0.93), innovation (M = 3.24, S.D. = 0.86), and the smallest was data processing skills (M = 3.24, S.D. = 0.94).

Table 4.3 Data Processing skills (n=217)

Items	M	S.D.	Level	Rank
1.You can collect data efficiently during data processing	3.17	1.19	high	2
2.You can clean data quickly and correctly during data processing	3.02	1.19	high	4
3. You can analyze data accurately during data processing	3.20	1.26	high	1
4. Your overall assessment of your data processing skills is excellent	3.12	1.15	high	3

Total	**3.13**	**1.20**	**high**

According to Table 4.3, it can be seen that data processing skills regarding accounting students in Guangxi are at a high level (M= 3.13, S.D. = 1.20). The findings of this study reveal the following ranked results from highest to lowest. The highest is that students can analyze data accurately in the process of data processing (M= 3.20, S.D.=1.27),the second is that students can collect data efficiently during the process of data processing (M=3.17, S.D.=1.19), and the third is that the students perceive that their overall assessment of their data processing skills is excellent (M=3.12, S.D.=1.15), and the lowest item is that they can quickly during the process of data processing, clean the data correctly (M = 3.02, S.D. = 1.19).

Table 4. 4 Innovation skills (n=217)

Items	M	S.D.	Level	Rank
1. When faced with new problems, you are often able to apply innovative approaches to solving them	3.06	1.17	high	3
2. You have the skills to cope with uncertainty in the face of the unknown in your studies and in your life	3.26	1.12	high	1
3. You have the skills to adapt and lead the industry in a fast-moving era	2.89	1.19	medium	4
4. Your overall assessment of your innovation skills is excellent	3.10	1.16	high	2
Total	**3.08**	**1.16**	**high**	

According to Table 4.4, it can be seen that regarding the innovation ability of accounting students in Guangxi is at a high level (M= 3.08, S.D. = 1.16). The findings of this study reveal the following ranked results from highest to lowest. The highest is the skills to cope with uncertainty when facing unknowns in learning and life (M= 3.26, S.D.=1.12), and the second is the students perceive themselves to be excellent in the overall assessment of their innovation skills (M= 3.10, S.D. = 1.16),the third is that when faced with a new problem, they are usually able to solve the problem in an innovative way (M= 3.06, S.D. = 1.17), and the lowest item is that in the age of rapid development, possessing the ability to adapt themselves and to ability to lead the industry (M= 2.89, S.D. = 1.19)

Table 4.5 Communication and interpersonal skills (n=217)

Items	M	S.D.	Level	Rank
1. Typically, you are able to work well in teams with others	3.48	1.16	high	1
2. Your language skills are excellent	3.35	1.21	high	4
3. Typically, you are able to interact with others in a smooth and friendly manner	3.47	1.23	medium	2
4. Your overall assessment of communication and interpersonal skills is excellent	3.37	1.12	high	3
Total	**3.42**	**1.18**	**high**	

According to Table 4.5, it can be seen that the communication and interpersonal skills regarding accounting students in Guangxi are at a high level (M= 3.42, S.D. = 1.18). From the results of this study, from high to low, the highest is that the students are usually able to work smoothly with others in a team (M= 3.48, S.D.=1.16),the second is that the students and the third is that the students are usually able to work smoothly and amicably with others to conduct interpersonal interactions (M= 3.47, S.D.=1.23), the third was that students perceived their overall assessment of communication and interpersonal skills to be excellent (M = 3.37, S.D. = 1.12), and the lowest item was that students perceived that their verbal skills were excellent (M= 3.35, S.D. = 1.21)

Table 4.6 Accounting professional ethics (n=217)

Items	M	S.D.	Level	Rank
1. You are familiar with the content of accounting professional ethics	3.08	1.25	high	4
2. You are a man of great integrity	4.00	1.12	high	2
3. You will observe the relevant laws and regulations in your daily life and in the course of your internship	4.11	1.10	high	1
4. Your overall assessment of accounting professional ethics is excellent	3.48	1.16	high	3
Total	**3.67**	**1.16**	**high**	

According to Table 4.6, it can be seen that the accounting professional ethics of accounting students in Guangxi is at a high level (M= 3.67, S.D. = 1.16). The findings of this study reveal the following ranked results from highest to lowest. The highest is that students will comply with relevant laws and regulations in their daily life and study (M= 4.11, S.D.=1.10), the second is that students consider themselves to be a person with a high level of honesty and integrity (M= 4.00, S.D.=1.12), and the third is that students believe that their overall assessment of accounting professional ethics is excellent (M=3.48, S.D.=1.16), and the lowest item is that students are familiar with the content of accounting professional ethics (M= 3.08, S.D.=1.25).

Table 4.7 There are four dimensions of perceived Importance of accounting skills in digital era for accounting students in Guangxi (n=217)

Items	M	S.D.	Level	Rank
1.As an accounting student, you believe that data processing skills are important in the digital age	3.73	1.07	high	4
2. As an accounting student, you believe that innovation skills are important in the digital age	3.91	1.05	high	1
3. As an accounting student, you believe that communication and interpersonal skills are important in the digital age	3.78	1.18	high	2
4. As an accounting student, you believe that accounting professional ethics are important in the digital age	3.77	1.20	high	3
Total	**3.80**	**1.13**	**high**	

According to Table 4.7, it can be seen that regarding Guangxi accounting students' perception of the importance of accounting skills in the digital era on the four dimensions is at a high level (M=3.80, S.D.=1.13). The findings of this study reveal the following ranked results from highest to lowest. The highest is that students believe that innovation skills are important in the digital age (M= 3.91, S.D.=1.05), the second is that students believe that communication and interpersonal skills are important in the digital age (M=3.78, S.D.=1.18), and the third is that students believe that accounting professional ethics are important in the digital age (M=3.77, S.D.=1.20), and the lowest item is that students believe that data processing skills are important in the digital age (M= 3.73, S.D.=1.07).

Table 4.8 There are four dimensions of satisfaction with teaching Methods of accounting skills in digital era for accounting students in Guangxi (n=217)

Items	M	S.D.	Level	Rank
1. You are satisfied with the teaching methods used by the school in developing students' data processing skills	3.18	1.15	high	4
2. You are satisfied with the teaching methods used by the school in developing students' innovation skills	3.22	1.72	high	3
3. You are satisfied with the teaching methods used by the school in developing students' communication and interpersonal skills	3.29	1.16	high	2
4. You are satisfied with the teaching methods used by the school in developing students' accounting professional ethics	3.33	1.10	high	1
Total	**3.26**	**1.28**	**high**	

According to Table 4.8, it can be seen that regarding Guangxi accounting students' satisfaction with teaching Methods of accounting skills in the digital era on the four dimensions is at a high level (M=3.26, S.D.=1.28). The findings of this study reveal the following ranked results from highest to lowest. The highest is that students satisfied with the teaching methods used by the school in developing students' accounting professional ethics (M= 3.33, S.D.=1.10), the second is that students satisfied with the teaching methods used by the school in developing students' communication and interpersonal skills (M=3.29, S.D.=1.16), and the third is that students satisfied with the teaching methods used by the school in developing students' innovation skills (M=3.22, S.D.=1.72), and the lowest item is that students satisfied with the teaching methods used by the school in developing students' data processing skills (M= 3.18, S.D.=1.15).

5. Conclusion

This research, "Guideline to the Development of Accounting Students' Skills in the Digital Age in Guangxi," aimed to determine essential competencies and propose a guideline to enhance accounting education in Guangxi. The findings provide significant insights into the status, perceived importance, and satisfaction with the teaching methods associated with four critical skills for accounting students in the digital economy: data processing skills, innovation skills, communication and interpersonal skills and accounting professional ethics.

Status of Student Mastery

The study revealed that Guangxi accounting students possess a high level of competency across all four skills, with the following rankings:

1. Accounting Professional Ethics: Students demonstrated strong adherence to laws, high integrity, and overall ethical behavior, although familiarity with the detailed content of professional ethics was relatively lower.
2. Communication and Interpersonal Skills: Students excel in teamwork and interpersonal interactions, though they identified verbal communication as an area for improvement.
3. Innovation Skills: While students effectively solve problems and cope with uncertainty, their ability to adapt and lead in rapidly changing industries is less developed.
4. Data Processing Skills: Students are proficient in analyzing and collecting data but face challenges in quickly and accurately cleaning datasets.

Perceived Importance

Students ranked the importance of these competencies in the following order:

1. Innovation Skills: Recognized as the most crucial for navigating uncertainty and fostering creativity in the digital economy.
2. Communication and Interpersonal Skills: Highlighted as vital for collaboration and teamwork in professional contexts.
3. Accounting Professional Ethics: Viewed as fundamental for ensuring trust and compliance in the profession.
4. Data Processing Skills: Essential for leveraging technology and managing data-driven tasks effectively.

Satisfaction with Teaching Methods

Students expressed overall satisfaction with the teaching methods employed to develop these competencies, ranking their satisfaction as follows:

1. Accounting Professional Ethics: Teaching methods were well-received, emphasizing integrity and regulatory compliance.
2. Communication and Interpersonal Skills: Students appreciated strategies fostering teamwork and interaction.
3. Innovation Skills: While students valued the methods promoting creativity, room for improvement remains.
4. Data Processing Skills: Although rated satisfactory, the lowest ranking suggests a need for enhanced methodologies to address data-cleaning challenges.

Discussion

1. Data processing skills: By analyzing the data above, we know that students have a high level of data-processing skills, but student satisfaction with the teaching methods used in schools is the lowest of the four skills, and there is still room for significant improvement. Zhao Qidong (2024) suggests that the development of digitalization has challenged the traditional model of accounting education, and that the development of new fields such as information security and data processing in the digital environment in the context of digitalization requires that accounting education should be innovative in its teaching methodology, update its content in a timely manner, and enhance the integration of interdisciplinary knowledge. Therefore, the school can optimize the curriculum, add courses related to data processing skills, and at the same time should also strengthen the practical training of students' data processing skills, further improve the cultivation of students' data processing skills through the combination of theory and practice, and improve students' satisfaction with the teaching methods used by the school to cultivate their data processing skills, so as to help the students better meet the requirements of the digital era for accounting professionals. The requirements of data processing ability in the digital era.
2. Innovative ability: Xiao Jinhong (2023) pointed out in the new era of innovation in the transformation of accounting teaching in colleges and universities, accounting workers need to have a stronger ability to

adapt and innovate in order to adapt to the changes and development of the market, colleges and universities should be through the teaching of innovation to improve the students' ability to adapt and innovate. Xin Chunhua (2016) has put forward the concept of "full-penetration participatory active learning", under the guidance of which teachers should help students to establish the awareness of innovative ability, establish the main position of students in the teaching process, and help students to transform relevant knowledge into competence.

3. Communication and interpersonal skills: Students' belief that communication and interpersonal skills are very important in the digital age reflects a high level of awareness of the importance of the competencies, but there are still deficiencies in concrete practice. In the digital age, the basic work of accounting is no longer limited to a series of basic tasks such as bookkeeping, financial workers need to carry out cross-departmental communication, and should also provide development advice for enterprises. In order to enhance the employability of college students in this era, Liu Yi (2024) suggests that colleges and universities should help students master the skills of teamwork and strengthen the development of students' communication skills through the addition of relevant courses and extracurricular activities.
4. Accounting professional ethics: Wang Lingxian (2021) suggests that students' accounting professional ethics can be cultivated in three stages: before, during and after class. Teaching objectives should be clarified before class, accounting professional ethics education should be infiltrated into professional teaching during lectures, and teaching evaluations of students' learning quality and teachers' teaching methods should be carried out after class, so as to improve students' accounting professional ethics. In addition to clarifying the teaching objectives, Long Yongjun (2020) proposed that colleges and universities can raise the status of accounting professional ethics education, improve the curriculum system, rationally allocate teaching resources, and innovate the methods of teaching to cultivate accounting talents with both solid professional skills and high professional ethics.

Recommendations

Based on this research findings, the following guidelines are proposed to enhance accounting education in Guangxi further:

1. Enhancing Data Processing Skills: Develop a targeted training program that focuses on the efficient completion of the data cleansing process, incorporates advanced data analysis tools into the curriculum, and conducts more hands-on training courses to exercise students' practical application skills and help them transform their theoretical knowledge into practical skills.
2. Strengthening Innovation Skills: Modern teaching methods such as scenario simulation and flipped classroom can be adopted, and school-enterprise cooperation can be strengthened to create more opportunities for students and help them prepare for being able to lead the industry in the future in the rapidly developing digital economy.
3. Improving Communication and Interpersonal Skills: More group activities can be carried out in the classroom to strengthen communication among students and exercise their interpersonal skills; extracurricular activities such as speeches and debate competitions can be organized outside the classroom to enhance students' self-confidence and ability to express themselves.
4. Deepening Knowledge of Professional Ethics: Design a comprehensive teaching program on accounting ethics, including case studies and real-life scenarios, to help students deepen their understanding and application.
5. Adapting Teaching Methods: Regularly assess and update teaching methodologies to align with students' needs and emerging industry requirements, ensuring an engaging and effective learning experience.

By implementing these strategies, Guangxi's accounting education system can equip students with the essential competencies to thrive in the digital age and contribute meaningfully to the global economy.

Future Researches

1. Longitudinal Studies on Skill Development

Conduct a long-term study to track the progress of accounting students' competencies over time while evaluating the impact of curricular changes or new teaching methods on student outcomes.

2. Integration of Emerging Technologies

Investigate the role of emerging technologies such as artificial intelligence and big data analytics in accounting education and further explore how these technologies can be effectively integrated into the accounting curriculum to improve practical and technical skills.

3. Teaching Methodologies and Innovations

To examine the effectiveness of innovative teaching methods such as flipped classrooms and scenario-

based simulations in developing the skills of accounting students, and to assess how these methods affect student engagement, satisfaction, and skill retention, in time to supplement classroom instruction.

4. Focus on Soft Skills Development

Examine the improvement of soft skills such as leadership, adaptability, and emotional intelligence in accounting education and examine the relationship between these skills and long-term career success.

5. Assessment of Digital Literacy

Analyze the current level of digital literacy among accounting students and its impact on their ability to adapt to technological advancements in the profession.

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