Study of Behavioral Characteristics and Differences in Effectiveness of AIGC Use by College Students

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Abstract

With the deep integration of AIGC into higher education, this study focuses on the differences in AIGC usage behaviors and effects among college students in the scenarios of course learning, scientific research, daily social life, and work tasks, and analyzes the influence of individual characteristics, aiming to provide a reference for the rational application of AIGC. Based on 1,900 valid questionnaires, the study reveals how the application of AIGC promotes the ability of college students in different scenarios; using K-means clustering, students are categorized into four groups, namely, academic-assisted, research-creation and deliberation, enjoyable-experiential, and shrewd and competent, to analyze the effect of the use of AIGC on different groups. It is found that AIGC helps to improve learning, innovation, socialization and working ability; the characteristics of gender, grade and major significantly affect the usage effect; and there are significant differences in the paths of AIGC usage effect among the four groups. It is suggested that students should correctly use AIGC to meet their own needs; the technical team should provide personalized services to help students make reasonable use of the tool to improve their own abilities; colleges and universities should strengthen the guidance and standardization of the application of AIGC, and set up educational scenarios to support the development of students.

Keywords

College Students, AIGC, Behavioral Characteristics, Differences in Effects.

1. Introduction

The rapid development of Artificial Intelligence Generated Content (AIGC) has made it gradually become an important tool in many fields, such as education, scientific research, socialization and work. Relying on large language models, AIGC has powerful information generation, data processing and dialogue interaction capabilities, providing users with efficient and convenient intelligent services, especially in the field of higher education, AIGC can not only help students to quickly absorb knowledge, write text, optimize code, but also assist in scientific research data analysis, literature review, experimental design, etc., which significantly improves the efficiency of learning and scientific research. In addition, the potential of AIGC in social applications is becoming more and more prominent. By interacting with AI, students can simulate complex conversations, get emotional support, and even improve social skills. So, what are the behavioral patterns and preferences of college students using AIGC in different scenarios? What is its effectiveness? Do personal characteristics affect the effectiveness of usage? Answering these questions is important for understanding the empowering potential of AIGC and promoting its effective application in education.

2. Literature Review

Based on the review of related literature, we found that college students use AIGC tools more frequently, especially in learning and writing scenarios. Wang Siyao et al. (2024) pointed out

that 89% of college students use AIGC to complete their assignments, and 53% of college students write papers with the help of AIGC [1]. Sun Dan et al. (2024) showed that college students often use AIGC in programming learning, especially when they encounter technical difficulties, copying code or error messages directly into AIGC for feedback and applying AIGC's suggestions directly [2]. This dependency is even more obvious among low academic achievers, who rely on AIGC to help them learn programming almost from start to finish. Tang Qianwen et al. (2025) pointed out that when college students use AIGC tools, they mainly focus on information acquisition and simple task assistance, but their ability to apply the tools in depth is weak and tends to stay on the surface [3]. Second, in terms of the characteristics of usage behavior, He Shanyun et al. (2024) found through dialogue analysis that college students' interactions with the AIGC tool were mainly in the form of initial questioning, extended questioning, and restatement of the questioning, while there were fewer discourses for evaluating and continuing instruction [4]. Students preferred single-round interactions and less ongoing discussions in dialogs. In addition, the cognitive level of students' questioning was low, mostly focusing on the knowledge level and comprehension level, and underutilizing the advanced features of the tool. In addition, college students' motivations for using the AIGC tool are more complex. The study by Zhu Junhua et al. (2024) showed that the motivation for using it mainly lies in its convenience and efficiency, which enables them to obtain information and complete tasks quickly. However, some students also showed excessive reliance on the tool and even academic misconduct such as plagiarism and plagiarism [5]. Wang Yabing et al.'s (2025) study revealed the complex attitudes of college students toward AIGC tools. On the one hand, they agree that these tools can provide immediate feedback, simplify tasks, and other advantages [6]; however, some students have reservations about their accuracy and reliability, and worry that over-reliance may hinder the growth of their own abilities. Zhou Hongyu et al. (2023) mentioned that college students have significant motivational differences in using AIGC tools [7]. Some students view them as study aids, while others may use them for curiosity or recreational purposes. Ultimately, AIGC also affects college students in many ways, both positively and negatively. On the positive side, AIGC tools can provide college students with personalized learning support, helping them to access information quickly and optimize their learning paths, thus improving their learning efficiency (Qiu, Junping, et al., 2024).AIGC can also stimulate students' creativity and higher-order thinking skills by providing diverse perspectives and creative content (Wang, Siyao, et al., 2024; Zhang, Yuyu, et al., 2024). However, the use of AIGC tools may also bring some negative effects. Over-reliance on AIGC leads to students' lack of independent thinking ability when facing complex problems, and even triggers academic misconduct such as plagiarism and plagiarism (Siyao Wang et al., 2024; He Shanyun et al., 2024). In addition, the underlying technology of the generated text tool may have value bias, spreading non-mainstream values and negatively affecting students' values (Li Zhe et al., 2024) [8]. In summary, AIGC tools have an important application value in the study and life of college students, but they also bring many challenges. Based on this, we aim to further explore how to give full play to the positive effects of AIGC tools in education and teaching and maximize the value of their use by studying the behaviors and preferences of college students towards AIGC.

3. Research Hypotheses

The rational application of AIGC technology can significantly enhance the competence level of college students. In different scenarios, there are differences in the mechanism of the impact of AIGC technology on competence enhancement. Based on this, hypothesis 1 is proposed:

H1: Differences in the impact of AIGC technology on capacity enhancement across scenarios.

In addition, differences in individual characteristics lead to differences in the path of AIGC use effects among different types of college student groups. Based on this, Hypothesis 2 is proposed in this study:

H5: There are differences in the pathways of competence enhancement effects of AIGC use among different types of college students.

4. Research Methodology

4.1. Questionnaire Design and Data Collection

In this study, a questionnaire was developed on "AIGC use behavior and effect of use among college students", which was divided into three parts. The first part is the students' basic information, including gender, grade level, subject category, grade ranking, etc. The second part is the students' current situation of using AIGC. The second part of the questionnaire is about the current situation of AIGC usage among college students, including the time of starting to use AIGC, the frequency of usage, and the willingness to use AIGC. The third part is the behavior and effects of college students' use of AIGC in four typical scenarios. The typical scenarios and specific contents are determined from the results of literature review and semi-structured interviews with more than ten undergraduates, involving four typical scenarios, namely, course study, scientific research, daily social life and work tasks.

In order to ensure the comprehensiveness and representativeness of the data, the survey targets cover different colleges, majors and grades. Questionnaire Star, an online platform, was used to release the questionnaire, and a total of 2030 questionnaires were recovered, with 1900 valid questionnaires and a validity rate of 95.71%. The results show that among the 1900 students who participated in the survey and the results are valid, 52.07% are male and 47.93% are female. The grade distribution was 22.1% for freshmen, 25.38% for sophomores, 26.79% for juniors, 23.21% for seniors, and 2.52% for seniors.

4.2. K-means Clustering

Considering the differences in the effectiveness of AIGC use among students in different grades, subject categories, grade rankings, enrollment scores, and institutional locations, this paper takes the above factors as sample data and first divides the student population into two major categories based on the differences in study time: study-type versus non-study-type. Further, learning students were subdivided into academic-assisted and research-deliberative types based on the amount of study time spent on learning in and out of the classroom and whether or not they had academic research experience, while non-learning students were classified into group-experienced and savvy-experienced types based on the number of internships they had participated in and the amount of time they had spent on group and social activities. Therefore, in this study, the number of clusters, k, was chosen to be 4, and four initial cluster centers were randomly selected to represent each of the above four groups of students. For each student sample, the category to which it belongs is determined by calculating its distance from the four clustering centers. Subsequently, based on the results of the distance calculation, each student sample is assigned to the nearest clustering center, thereby determining its population type. For each cluster, the mean of all student samples in that cluster is recalculated and this mean is used as the new cluster center. The above process is repeated until the clustering center no longer changes or a predetermined number of iterations are reached. Based on the results of the cluster assignment, combined with the indicators of subject category, grade ranking, enrollment scores, institutional location, and weekly study time in and out of class, the features extracted in this study for the four groups of students using AIGC are as follows.

Table 1. Characteristics of the four student groups

	distinguishing between the sexes	grade	academic category	grades	Entrance Score	Institution Location
Academic Research Assistant	females	Freshman, sophomore	Science, Medicine	Top 20%	550 points or more	--
research and developmental deliberation	a male	third-year university student	Engineering, Science and Medicine	Top 40%	550 points or more	--
Lok Kwan Experiential	--	Freshman, sophomore, junior	liberal arts	40%-80%	480-550 points	First and second tier cities
intelligent and capable	females	fourth-year university student	liberal arts	20%-60%	Less than 550 points	first-line city

5. Empirical Analysis

5.1. Mechanisms of AIGC Use Behavior on Ability Development in Different Scenarios

AIGC technology relies on advanced large-scale language models, and has significant advantages in the field of education due to its fast response, efficient Q&A, and multimodal data analysis capabilities, and its powerful information retrieval and content generation capabilities. Its powerful information retrieval and content generation capabilities, together with the dialogue-based interactive mode, strongly support independent learning, human-computer collaborative learning, exploratory learning, etc. As an all-round intelligent tutoring tool, AIGC can achieve personalized learning support for "anyone, anytime, anywhere". The study shows that AIGC is significantly associated with college students' grades in specialized courses, information searching ability, reading ability and foreign language ability, especially in improving the grades of specialized courses and information searching ability, which indicates that college students can strengthen their learning effect with the help of AIGC, especially in the level of information acquisition and reading comprehension.

5.1.1. Mechanisms of AIGC's Influence on the Development of Learning Skills in Learning Scenarios

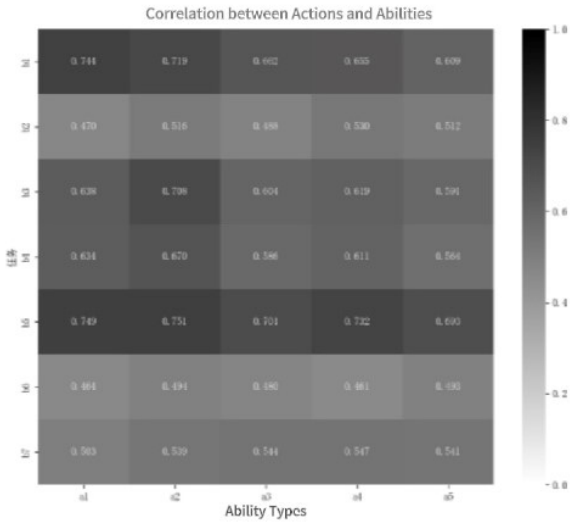

Figure 1. Learning Capabilities

Variable description:
a1: Professional course grades
a2: Information search ability
a3: Reading ability
a4: Foreign Language proficiency
a5: Test-taking ability
b1: Assist in previewing before class or reviewing after class
b2: Check for grammatical errors in Chinese and English writing
b3: Generate mock test questions to assist in training
b4: Implement and answer the difficult problems encountered in the learning process
b5: Help students achieve personalized learning
b6: Create specific scenarios to practice conversations in both Chinese and English
b7: Write and debug code

With the help of AIGC, students' information searching efficiency can be improved, and their understanding and absorption of specialized knowledge can be smoother. The study shows that the use of AIGC for pre-course preparation by college students is significantly correlated with their grades in specialized courses and their information searching ability. Through course Q&A interaction, learners can deeply understand and master the course content, improve learning efficiency, stimulate curiosity and spirit of inquiry, and enhance learning interest and motivation, highlighting the positive utility and practical value of AIGC in the learning process.AIGC breaks through the limitations of time and space, and can provide tutoring for learners around the clock, helping them quickly acquire knowledge, satisfy their desire for knowledge, practice questioning skills, cultivate critical thinking, and promote independent learning. AIGC can help learners acquire knowledge quickly, satisfy their curiosity, practice questioning skills, cultivate critical thinking and promote independent learning.

5.1.2. Mechanisms of AIGC's Influence on the Development of Work Competence in Work Scenarios

Figure 2. Work Capacity

Variable description:
a1: Negotiation and decision-making skills
a2: Work adaptability

a3: Self-management ability (self-motivation and self-regulation, the ability to maintain an efficient working state)
a4: Time management ability
b1: Optimize the workflow
b2: Assist in re-training (learn a complete set of new skills to take on new jobs)
b3: Leverage AI to understand customer needs and optimize operational processes
b4: Intelligent analysis of task priorities and time allocation
b5: Automatically prepare professional documents such as contracts and tender documents
b6: Assist in reflection and self-assessment

AIGC has the ability to efficiently organize and analyze data, edit text, search and analyze information, and write and check code. In the field of data processing and analysis, it can handle massive data, extract key information, dramatically reduce basic analysis work, and significantly improve analysis efficiency. As shown in Figure 2, college students' ability to analyze task priorities with the help of AIGC and allocate time accordingly is closely related to work adaptation ability and self-management ability, which means that college students' use of AIGC in planning tasks can effectively promote efficient work, better adapt to the work environment and improve work performance by reasonably allocating time and prioritizing important tasks.

With the help of AIGC, the mechanism integrates educational and corporate resources, realizing an accurate match between educational content and market demand. Through in-depth analysis of historical data, AIGC helps investors make predictions on the direction of the market and improve the accuracy of investment. In the customer service backend, AIGC automatically performs tasks such as document scanning, data entry and identity verification, improving operational efficiency and reducing the error rate. However, when college students use AIGC for self-reflection and assessment, its effectiveness in improving workplace skills is not significant.

5.1.3. Mechanisms of AIGC's Influence on the Development of Innovation Capacity in the Science and Innovation Scenario

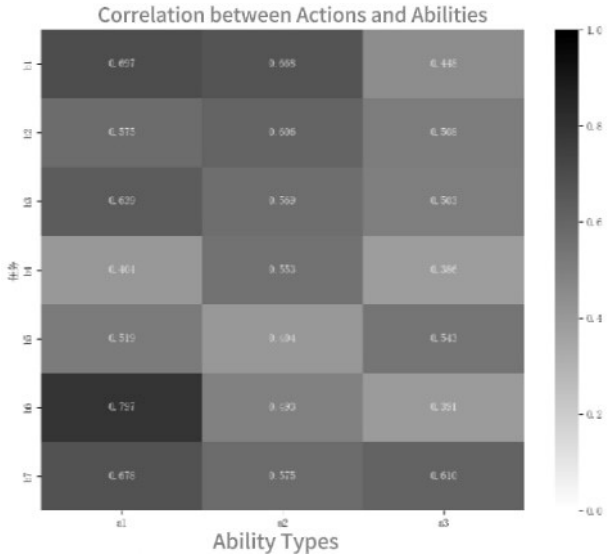

Figure 3. Innovation Capacity

Variable description:
a1: Creativity (the ability to generate new ideas and solutions)

a2: Critical thinking ability (The ability to analyze, evaluate information and solve problems)
a3: Written expression ability
b1: Assist in generating reasoning and hypotheses
b2: Automatically generate literature reviews
b3: Assist in analyzing experimental data
b4: Build a virtual simulation experiment platform
b5: Generate and optimize code to implement complex algorithms
b6: Offer interdisciplinary perspectives and inspirations
b7: Offer writing suggestions to enhance writing efficiency

AIGC, as a research assistance tool, can greatly improve the research efficiency of researchers. The data show that there is a significant correlation between the use of AIGC by college students to obtain interdisciplinary perspectives and inspirations and their creativity, indicating that AIGC plays an important role in improving college students' creativity. In addition, in the process of reasoning and forming hypotheses with the help of AIGC, college students need to deeply analyze the root causes of problems and clearly express their demands through repeated interactions with AIGC tools. This process not only exercises students' ability to analyze and evaluate facts, but also helps to cultivate and enhance students' critical thinking, encouraging them to engage in more in-depth analysis and thinking.

As a tool to assist knowledge production, AIGC embeds the knowledge evaluation process into the knowledge creation process to ensure that the quality of knowledge is tested by the judgment of personal experience, providing a solid guarantee of the final quality of knowledge. In addition, the introduction of AIGC accelerates the process of students' mastery of research skills and assists them in accomplishing tasks efficiently. With the help of AIGC tools, the written expression ability and writing efficiency of college students have been significantly improved. This suggests that AIGC can effectively help college students generate knowledge and provide writing guidance, thus improving their writing efficiency and quality and making the writing process more fluent.

5.1.4. Mechanisms of AIGC's Influence on the Development of Social Competence in Social Scenarios

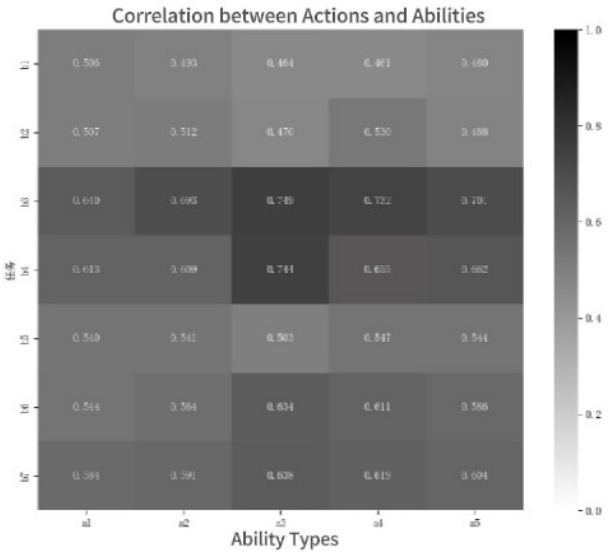

Figure 4. Social Skills

Variable description:

a1: Language communication skills
a2: Planning, coordination and organization skills
a3: Interpersonal communication skills
a4: Emotional Management ability
a5: The ability to deal with unexpected situations
b1: Establish an intimate relationship with AI and engage in emotional communication
b2: It provides a low-pressure environment to build confidence
b3: Simulate conversations in difficult scenarios
b4: Provide information on common sense of life
b5: Record emotional changes and ask for suggestions
b6: Simulate human social behaviors
b7: Inquire about the matters needing attention when participating in a certain activity

With the help of AIGC technology, college students can simulate complex conversation scenarios, effectively improve their verbal communication, planning, coordination and organizational skills, and enhance their interpersonal skills.AIGC's emergent ability and free text interaction function give it more flexibility and adaptability during conversations, which is more similar to real interpersonal interactions. Through interacting with AIGC, college students can get real-time personalized guidance and advice, which helps them better understand and master the social rules and codes of conduct, and thus enhance their social skills.

In addition, AIGC can not only quickly adapt to the user's language style and habits, but also continuously adjust the output content according to the chat context to achieve personalized emotional services. Data shows that emotional communication and seeking advice with AI can effectively improve the social skills of college students.AIGC improves the ability of college students to manage their emotions and self-development through the creation of interactive environments and the provision of emotional support, as well as enhancing their social skills.

In summary, hypothesis 1 is tested.

5.2. Pathway Analysis of the Effectiveness of Four Types of College Student AIGC Use

5.2.1. Path Analysis of the Use Effects of Academic Assistantships for Undergraduates

Research, study and work competencies of academic-assisted undergraduates are mutually reinforcing, but the extent to which each dimension of competency plays a role in the synergistic relationship varies significantly. Learning ability, as the foundation, is most closely related to research ability, and plays a key supporting role in the enhancement of research ability. By virtue of logical reasoning, knowledge integration and independent learning ability in learning ability, research students accumulate knowledge reserves and analytical skills, which directly promote the development of creativity and logical reasoning ability in research ability, and the two are closely linked and are the core driving force of academic performance. In contrast, research competence and work competence interact with each other, but to a lesser extent. Logical analysis and creative problem solving in research competence can facilitate complex decision making and problem solving in work scenarios, which is evident in task prioritization and solution design, and its analytical ability and innovative thinking can help improve work efficiency and quality in teamwork and task execution. However, the contribution of research ability to work ability is more limited, mainly in analyzing and adapting to complex scenarios, with less direct support for practical tasks.

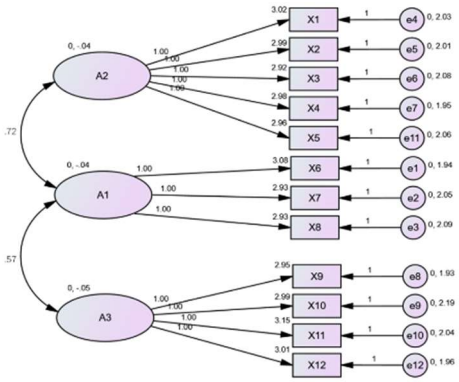

Figure 5. Results of model fit for academic assistantship type groups

Table 2. Criteria for fitting the model for the academic-assisted research-type group

norm	RMSEA	NFI	RFI	IFI	TLI	CFI	PGFI
recommended value	<0.08	>0.9	>0.9	>0.9	>0.9	>0.9	>0.5
Model actual values	.179	1.000	.075	1.000	.079	1.000	.240

5.2.2. Path Analysis of the Effectiveness of the Use of Research and Deliberate Thinking College Students

The research, study and work competencies of research-deliberative undergraduates are mutually reinforcing, yet the extent to which the different dimensions of the competencies play a role in the synergistic relationship varies significantly. Similarly, learning ability, as a cornerstone, plays a key role in supporting the enhancement of research ability. Through logical reasoning, knowledge integration and independent learning, research students accumulate rich knowledge reserves and analytical skills, which directly contribute to the development of creativity and logical reasoning in research ability. The two are closely linked and form the core drivers of the synergistic competencies of the research population, which form the foundation for academic performance. In contrast, research competencies and work competencies are significantly interacting with each other, but the degree of interaction remains weak. Logical analysis and creative problem solving in research competencies support complex decision making and problem solving in workplace scenarios, such as task prioritization and solution design. Analytical skills and creative thinking also contribute to efficiency and quality of work in teamwork and task execution.

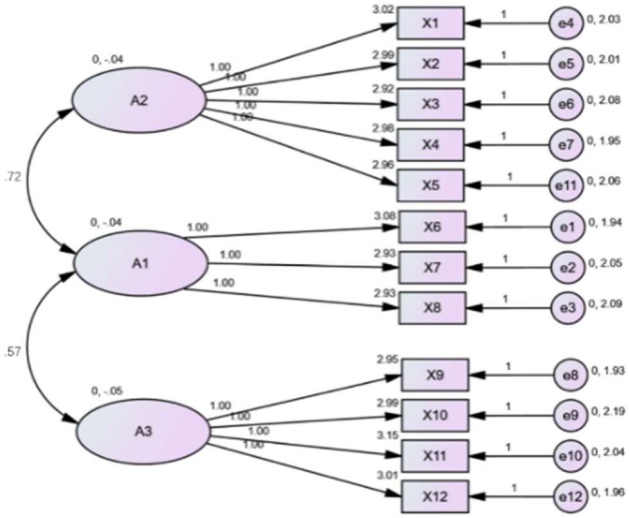

Figure 6. R&D Deliberative Group Model Fit Results

Table 3. R&D Deliberative Group Model Fitting Criteria

norm	RMSEA	NFI	RFI	IFI	TLI	CFI	PGFI
recommended value	<0.08	>0.9	>0.9	>0.9	>0.9	>0.9	>0.5
Model actual values	.179	1.000	.075	1.000	.079	1.000	.240

5.2.3. Path Analysis of the Effectiveness of the Use of Rakugan's Experiential College Students

The competency system of Lok Kwan experiential college students mainly covers work competency and social competency, and there is a significant synergistic effect between the two. Self-management and time control in work ability builds a solid foundation for the development of social ability. Efficient time planning helps students to have enough energy to devote to socializing after heavy tasks, which improves their interpersonal skills and ability to cope with emergencies. Self-management skills enhance the stability of task planning and execution, allowing students to be more flexible and efficient in social interactions. In addition, Negotiation and Decision Making Skills support verbal communication skills in specific scenarios and optimize the efficiency of teamwork and communication, although their facilitation is relatively limited and subject to scenario demands.

Social skills play an important role in the workplace, especially in interpersonal communication and emotion management. In the process of teamwork and cross-departmental coordination, good interpersonal skills can effectively reduce communication costs and improve the efficiency of task completion. Emotional management skills for students can enhance self-control and time management, to ensure that they can efficiently complete complex tasks. In addition, the ability to cope with emergencies allows students to adapt to changing work environments and quickly adjust their strategies, but this ability is more applicable to specific situations than the first two.

The synergy between work and socialization skills significantly enhances the overall quality of college students. Self-control and time management skills acquired at work can be used in socializing, and conversely, communication and teamwork skills acquired in socializing can be fed back into work. The interaction of skills enables college students to develop fully in different scenarios of work and social life, and to respond flexibly to complex tasks and dynamic environments.

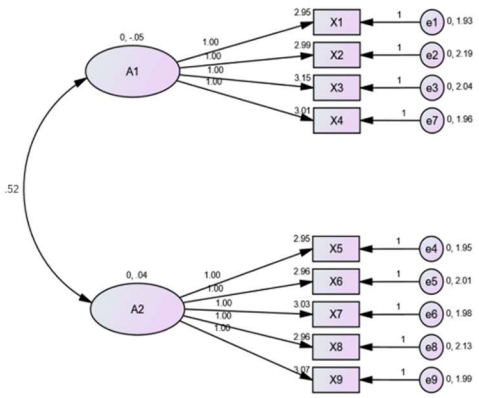

Figure 7. Fitting results of the Lekki experiential group model

Table 4. Criteria for fitting the experiential group model of Legion

norm	RMSEA	NFI	RFI	IFI	TLI	CFI	PGFI
recommended value	<0.08	>0.9	>0.9	>0.9	>0.9	>0.9	>0.5
Model actual values	.000	1.000	1.000	1.000	0.994	0.984	0.755

5.2.4. Path Analysis of the Use Effect of Savvy and Competent College Students

There is a strong correlation between work competence and research competence of smart and competent students. Self-management and time-control in work skills can provide time for research activities and enhance their creative and logical analytical abilities. The synergy between work skills and study skills is relatively weak because work skills focus on the execution of practical tasks, while study skills focus on knowledge acquisition and theory accumulation. However, time management and task prioritization in work skills can inform time management and planning of learning activities. At the same time, learning skills improve the ability to analyze tasks through knowledge accumulation, which plays an important role. In addition, work skills are at the center of social competencies. In teamwork and cross-departmental coordination, verbal communication and emotion management can effectively reduce communication costs and increase the efficiency of task completion.

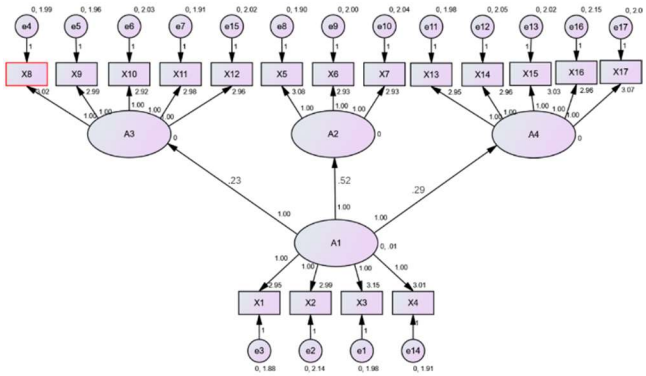

Figure 8. Results of model fitting for the shrewd and competent group

Table 5. Criteria for fitting the model of the shrewd and competent group

norm	RMSEA	NFI	RFI	IFI	TLI	CFI	PGFI
recommended value	<0.08	>0.9	>0.9	>0.9	>0.9	>0.9	>0.5
Model actual values	.150	.094	-.071	.102	-.078	.088	.846

6. Conclusion and Recommendations

6.1. Conclusion

1) Positive impact of AIGC on student capacity development

In learning scenarios, AIGC technology significantly improves student learning by creating customized learning support systems. In work scenarios, AIGC technology improves work efficiency by leveraging its ability to process and analyze data. In the research scenario, AIGC enhances students' research efficiency and creativity by providing intelligent research assistance, interdisciplinary perspectives, and innovative thinking; and in the social scenario, AIGC effectively improves students' verbal expression, planning coordination, and interpersonal skills through a highly fitted interaction environment.

2) Identification and support of individualized competency development pathways for four types of individuals

The study found that academic-assisted and research-deliberative students showed significant synergies in academic research and creative thinking, while the joyful-experiential and savvy-experiential students showed significant mutual reinforcement in social and work skills.

6.2. Recommendations

1) College students should maintain independent thinking when using AIGC technology and correctly recognize its functions and limitations. Analyze problems in depth with the help of AIGC to improve learning and innovation. Meanwhile, further explore the diverse functions of AIGC. In addition, combine theory and practice closely to gain a deeper understanding of the potential application value of AIGC in other fields.

2) Based on the differentiated characteristics of user groups, the technical team optimizes the product while providing personalized services for different types of user groups to meet their diverse soccer. At the same time, in-depth analysis of user behavioral data, constantly adjust and optimize the algorithm in order to improve the response speed and accuracy of the service. In addition, it pays close attention to users' experience feedback and adjusts service strategies in a timely manner to ensure that the development of technology keeps pace with users' needs and to promote the development of AI technology in the direction of humanization and intelligence.

3) Higher education institutions have strengthened guidance on the standardized use of AIGC, incorporated the use of AIGC tools into the digital literacy education system, and assisted students in the rational use of AIGC, while emphasizing the importance of academic integrity and independent thinking; paid attention to the differences in the student population, and provided differentiated support programmes according to the characteristics of different students; and cooperated with AIGC technology companies to promote the development of functions more suitable for educational scenarios.

References

[1] WANG Siyao,HUANG Yating. Facilitating or inhibiting: the impact of generative artificial intelligence on college students' creativity[J]. China Higher Education Research,2024,(11):29-36.

[2] SUN Dan,ZHU Chengcong,XU Zuodong,et al. Research on the analysis of college students' programming learning behavior based on generative artificial intelligence[J]. Research on E-Chemical Education,2024,45(03):113-120.

[3] TANG Qianwen,YIN Zihan,ZHANG Hao. Objectives and implementation strategies of digital literacy cultivation for college students in the context of generative artificial intelligence[J/OL]. Library Work and Research,1-12[2025-04-14].

[4] He Shanyun,Shen Yan. Learning to ask questions: a study of collaborative learning model between college students and generative artificial intelligence[J]. Journal of East China Normal University (Education Science Edition),2025,43(02):34-48.

[5] ZHU Junhua,XU Luyao,MA Jinyuan. How Generative Artificial Intelligence Empowers Student Learning - An Empirical Study Based on College Students' Self-Regulated Learning Behavior[J]. Research on Higher Engineering Education,2025,(02):66-72.

[6] Wang Yabing,Xuan Qianying,Zhang Jun Lawrence.A study on the effect of generative artificial intelligence intervention on college students' feedback input in foreign language writing[J]. Chinese Foreign Language,2025,22(02):71-78.

[7] ZHOU Hongyu,CHANG Shunshun. The future picture of generative artificial intelligence embedded in higher education, potential risks and its governance[J]. Modern Education Management,2023,(11):1-12.

[8] LI Zhe,CHEN Zhiyong. Cyberparenting in higher education:How generative artificial intelligence can empower[J]. Education Academic Monthly,2024,(11):95-102.